# Final decision on proposed revisions to the Mid-West and South-West Gas Distribution Systems access arrangement for 2020 to 2024

Submitted by ATCO Gas Australia

15 November 2019

Economic Regulation Authority
WESTERN AUSTRALIA

DMS206444

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## List of appendices

# Summary of Required Amendments

**Required Amendment 1**

The haulage demand forecasts for AA5 must reflect the values in Table 19 of this final decision.

**Required Amendment 2**

The ancillary reference services demand forecast for AA5 must reflect the values in Table 20 of this final decision.

**Required Amendment 3**

The key performance indicator targets in the access arrangement information must be amended to be consistent with Table 32 of this final decision.

**Required Amendment 4**

The values for total revenue (nominal) must reflect the values set out in Table 36 of this final decision.

**Required Amendment 5**

The operating expenditure used to determine total revenue must reflect the values in Table 83 of this final decision.

**Required Amendment 6**

The opening capital base for AA5 must reflect the values in Table 103 of this final decision. The capital expenditure which ATCO has proposed to include in the speculative capital expenditure account must not be added to the speculative capital expenditure account.

**Required Amendment 7**

The projected capital base (nominal) must be amended to reflect the values set out in Table 122 of this final decision.

**Required Amendment 8**

The return on the capital base must reflect the weighted average cost of capital parameters in Table 127 of this Final Decision.

**Required Amendment 9**

The depreciation of the capital base must reflect the values in Table 132 of this final decision.

**Required Amendment 10**

The estimated cost of corporate income tax must reflect the value in Table 154 of this final decision.

**Required Amendment 11**

The return on working capital calculation must be amended to be consistent with this final decision as set out in Table 163.

**Required Amendment 12**

The allocation of forecast total revenue (nominal) between reference services and other services must be amended in accordance with Table 166 of this final decision.

**Required Amendment 13**

Annexure A of the proposed revised access arrangement must be amended to reflect the tariffs set out in Table 189 of this final decision.

**Required Amendment 14**

The ancillary reference service tariffs should be amended to reflect the tariffs set out in Table 190 of this final decision.

**Required Amendment 15**

The words “cater for” in the last paragraph of fixed principle 11.3 in the proposed revised access arrangement must be deleted and the word “consider” reinstated.

**Required Amendment 16**

The words “cater for” in the last paragraph of fixed principle 11.4 in the proposed revised access arrangement must be deleted and the word “consider” reinstated.

**Required Amendment 17**

Consistent with the ERA’s final decision to require the deletion of the development rebate scheme from the extension and expansion requirements in the access arrangement, fixed principle 11.5 must also be deleted from the proposed revised access arrangement.

**Required Amendment 18**

Schedules 4 and 5 of the template service agreement must be amended to update the provisions for the services specified in Table 194 of this final decision to be consistent with the amendments that were made to the provisions for the special meter reading service and deregistering a delivery point service. That is, amendments to provide that the user is not required to pay the reference tariff if the service provider fails to undertake the service as a result of an event or circumstance within its reasonable control, which the service provider could have prevented or overcome.

**Required Amendment 19**

The word “circumstances” must be corrected to read “circumstance” in clause 4.3A of the template service agreement.

**Required Amendment 20**

Clause 5.3 of the proposed revised access arrangement must be amended to make clause 5.3(b)(iii) a new clause 5.3(b)(C). The word “will” as it appears in clause 5.3(d) and clause 5.3(e) must be amended to read “must”.

**Required Amendment 21**

Section 7.5 (Development Rebate Scheme) and defined terms “Development Rebate Scheme Costs” and Rebate Amount” must be deleted from the proposed revised access arrangement.

# Final decision

## Background

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 submitted its proposed access arrangement revisions, access arrangement information and access arrangement supporting information for the Mid-West and South-West Gas Distribution Systems (GDS) to the Economic Regulation Authority. [1] [2]

3. The role of the ERA is to determine whether ATCO's proposal complies with the requirements of the National Gas Law (NGL) and National Gas Rules (NGR) as implemented in Western Australia by the *National Gas Access (WA) Act 2009*.

4. The ERA invited submissions from interested parties on ATCO's initial proposal by publishing an initiating notice on 18 September 2018.

5. On 11 October 2018, the ERA published an issues paper to assist interested parties to prepare submissions and understand some of the issues to be addressed by the ERA in determining whether to approve ATCO's initial proposal.[3] Interested parties were invited to make their submissions by 14 November 2018. Submissions were received from seven interested parties (these parties are listed in Appendix 4).

6. The ERA published a draft decision on 18 April 2019.[4] The decision did not approve ATCO's proposal and detailed 37 required amendments. ATCO was given until 12 June 2019 to submit a revised access arrangement proposal that addressed the draft decision requirements.[5]

7. ATCO's revised proposal was received on 12 June 2019, consisting of a proposed revised access arrangement,[6] revised access arrangement information[7] and other supporting information. The revised proposal was published on the ERA's website on 13 June 2019.

8. Interested parties had until 10 July 2019 to make submissions on the ERA's draft decision and ATCO's revised proposal.[8] Submissions were received from eight interested parties (listed in Appendix 4). The ERA accepted a late submission from

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

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

3 ERA, *Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024: Issues Paper*, 11 October 2018 (online) (accessed October 2018).

4 ERA, *Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024*, 18 April 2019 (online) (accessed June 2019).

5 The original date for ATCO to submit a revised proposal was 5 June 2019. This date was extended by the ERA to 12 June 2019.

6 ATCO, *Access Arrangement for the Mid-West and South-West Gas Distribution Systems*, 12 June 2019.

7 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019.

8 The original date for interested parties to make submissions was 3 July 2019. This date was extended by the ERA to 10 July 2019.

ATCO on 12 August 2019.[9] ATCO's late submission was in response to other submissions on the draft decision.

9. On 6 September 2019 the ERA published a report assessing the demand forecasts in ATCO's revised proposal.[10] ERA commissioned Woollahra Partners to review the gas demand forecasts in ATCO's response to the ERA's draft decision. Interested parties had until 16 September 2019 to make submissions on the report findings. Two submissions were received (listed in Appendix 4).

## ATCO's initial proposal

10. 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.[11] ATCO owns and operates the GDS.

11. 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.[12]

12. ATCO's proposal covers the five-year period from 1 January 2020 to 31 December 2024 (referred to as the fifth access arrangement period or AA5). ATCO's current access arrangement applies until the ERA approves a revised access arrangement.

13. ATCO 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.
- To apply different tariff increases for B3 (residential) customers. Under ATCO's proposal, the average B3 customer would incur a 24.1 per cent real increase in its annual network bill in 2020 and about a 1 per cent real annual increase for the remaining years of AA5.[13]

14. ATCO explained that some of this increase was a result of 2019 tariffs that were set below the expected cost of service for that year.[14] Other contributing factors to the

[9] ATCO, *Response to the Alinta/Kleenheat Comments on ATCO's Revised Plan*, 31 July 2019.

[10] Woollahra Partners, *Review of ATCO's AA5 Gas Demand Forecasts – Report for the Economic Regulation Authority*, 2 September 2019.

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

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

[13] The retail bill for a (B3) small use customer 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 ATCO's distribution network. ATCO notes that network charges represent about 30 per cent of the retail bill for small use customers.

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.

[14] 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.

real increase in haulage reference tariffs included increased proposed capital expenditure for AA5 and lower demand forecasts.

15. ATCO proposed to spend:

- $357.4 million in operating expenditure during AA5. ATCO used the base-step-trend method to estimate its operating costs, excluding unaccounted for gas and ancillary services, which were separately estimated.
- $509.3 million in capital expenditure during AA5. Over 50 per cent of this expenditure was for network asset replacement and performance. Around 34 per cent of capital expenditure was for network growth with the remaining expenditure for information technology and structures and equipment expenditure.

16. ATCO's proposed rate of return was 6.03 per cent (nominal after tax).

## ERA's draft decision

17. The ERA's draft decision was to not approve ATCO's proposed revisions to the GDS access arrangement for 2020 to 2024. The reasons for not approving ATCO's proposal were set out in the draft decision document.

18. ATCO was required to make 37 amendments to the access arrangement before the ERA would approve it.

19. Under rule 59(3) of the NGR, the ERA was required to fix a period of at least 30 business days (known as the "revision period") within which ATCO may, under rule 60(1), submit additions or other amendments to its proposal to address the matters raised in the ERA's draft decision. The ERA fixed the revision period at 30 business days from the date it published the draft decision. ATCO could submit revisions to its proposal by 4.00 pm (WST) Wednesday, 5 June 2019. This deadline was subsequently extended by the ERA to 12 June 2019, following a request from ATCO.

20. Consistent with rule 59(5)(c)(iii) of the NGR, the ERA invited submissions on its draft decision for a period of 20 business days following the revision period fixed for ATCO. Submissions were due by 4:00 pm (WST) Wednesday, 3 July 2019. This deadline was subsequently extended by the ERA to 10 July 2019, following the extension to ATCO's revision period.

## ATCO's response to the draft decision

21. ATCO accepted 24 of the ERA's 37 draft decision required amendments. ATCO rejected amendments on the ERA's assessments of actual expenditure for the fourth access arrangement period (AA4) and forecast expenditure for AA5. ATCO submitted that "implementing the [ERA's] draft decision would result in adverse consequences for [its] customers, [its] business, and the safety and security of [its] network".[15]

22. ATCO's revised proposal was to increase haulage reference tariffs by inflation plus 10.6 per cent on 1 January 2020, followed by inflation plus 2.3 per cent increase for

[15] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, ix.

each of the remaining years of AA5 for all industrial and commercial customers (that is A1, A2, B1 and B2 customers).

23. ATCO proposed different tariff increases for B3 (residential) customers. Its revised proposal was to:

- Hold the B3 fixed charge at the 2019 level in real terms during AA5.
- Maintain the variable charge for the first 1.825GJ per year at no charge during AA5.
- Increase the variable charges on 1 January 2020 for usage between 1.825GJ per year and 9.855GJ per year by 46.4 per cent and for usage over 9.855GJ per year by 142.2 per cent in real terms, followed by a 2.3 per cent real increase for these variable charges over the remaining years of AA5.

24. ATCO's revised proposal was to spend $345.1 million in operating expenditure and $437.0 million in capital expenditure during AA5.

25. ATCO's revised rate of return was 4.87 per cent (nominal after tax).

## ERA's final decision

26. The final decision is to not approve ATCO's revised proposed revisions to the GDS access arrangement for 2020 to 2024. The reasons for not approving ATCO's revised proposal are set out in this final decision.

27. The ERA has identified 21 required amendments to ATCO's proposed revised access arrangement that need to be made before it can be approved. The required amendments, listed on pages iii and iv of this final decision, are also stated in the reasons for this final decision at the point where each part of the access arrangement is considered. The ERA's final decision complies with the NGL and NGR, in particular the ERA has considered the national gas objective and revenue and pricing principles. In making the final decision, the ERA has also given consideration to the *National Gas Access (WA) (Local Provisions) Regulations 2009* with respect to small use customers and those that supply those customers.

28. The ERA's final decision reduces ATCO's revised haulage reference tariff increase to inflation plus 1.50 per cent in 2020 with subsequent annual increases of inflation plus 1.40 per cent for all industrial and commercial customers (that is A1, A2, B1 and B2 customers).

29. The ERA's final decision also reduces ATCO's revised B3 (residential) customer haulage reference tariff increases:

- The B3 fixed charge will remain the same as the 2019 charge in real terms during AA5.
- The variable charge for the first 1.825GJ per year will remain at no charge during AA5.
- The variable charge on 1 January 2020 will increase for usage between 1.825GJ per year and 9.855GJ per year by 10.22 per cent and for usage over 9.855GJ per year by 70.62 per cent in real terms, followed by a 1.40 per cent real increase for these variable charges over the remaining years of AA5.

30. The ERA has decided that $321.25 million in operating expenditure and $410.19 million in capital expenditure satisfies the requirements in the NGR during AA5.

31. The rate of return used for this final decision is 4.16 per cent (nominal after tax).

## ERA's approved access arrangement

32. The NGR contain provisions for the ERA to make or revise an access arrangement proposal when the ERA's final decision is to refuse to approve a service provider's access arrangement proposal.

> **64 [ERA's] power to make or revise access arrangement on refusing to approve an access arrangement proposal**
>
> (1) If, in an access arrangement final decision, the [ERA] refuses to approve an access arrangement proposal (other than a variation proposal), the [ERA] must itself propose an access arrangement or revisions to the access arrangement (as the case requires) for the relevant pipeline.
>
> (2) The [ERA's] proposal for an access arrangement or revisions is to be formulated with regard to:
>
> (a) the matters that the Law requires an access arrangement to include; and
>
> (b) the service provider's access arrangement proposal; and
>
> (c) the [ERA's] reasons for refusing to approve that proposal.
>
> (3) The [ERA] may (but is not obliged to) consult on its proposal.
>
> (4) The [ERA] must, within 2 months after the access arrangement final decision, make a decision giving effect to its proposal.
>
> (5) When the [ERA] makes a decision under this rule, it must:
>
> (a) give a copy of the decision to the service provider; and
>
> (b) publish the decision on the [ERA's] website.
>
> (6) The access arrangement or the revisions to which the decision relates takes effect on a date fixed in the determination or, if no date is so fixed, 10 business days after the date of the decision.

33. The ERA has not approved ATCO's proposed revised access arrangement. Pursuant to rules 64(1) and 64(4) of the NGR, the ERA must now itself propose revisions to the access arrangement for the GDS and make a decision to give effect to its proposal, within two months of this final decision.

34. The ERA considers that for the purpose of rule 64(4), this final decision constitutes the decision that gives effect to its proposed revised access arrangement for the GDS.

35. In accordance with rule 64(2) of the NGR, the ERA has formed its proposed revisions to the access arrangement having regard to the requirements of the NGL, ATCO's revised proposal and the ERA's reasons for refusing to approve it. The ERA has made the necessary revisions to ATCO's proposed revised access arrangement, consistent with the required amendments in this final decision.

36. As provided for under rule 64(3) of the NGR, the ERA has decided not to consult on its proposed revised access arrangement.

37. Consistent with the requirements of rule 64(5) of the NGR, the ERA has published its decision and approved access arrangement on its website[16] and has provided ATCO with a copy of each. The ERA has also drafted its own access arrangement information, which contains the information that is required to understand the background to, and the basis and derivation of the various elements of, the approved access arrangement. The access arrangement information is also available on the ERA's website.

38. In accordance with rule 64(6) of the NGR, the ERA has decided that its approved access arrangement for the GDS will take effect on 1 January 2020 (see section 2.1 of the approved access arrangement).

[16] Economic Regulation Authority, 'Access Arrangement for Period 2020 to 2024' (online) (accessed November 2019).

# Reasons

## Decision making framework

### *Regulatory framework*

39. 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*.

40. 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.

41. 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.

42. As specified, the ERA must consider the revenue and pricing principles. These principles are set out in section 24 of the NGL.

> **24 Revenue and pricing principles**
>
> (1) The revenue and pricing principles are the principles set out in subsections (2) to (7).
>
> (2) A service provider should be provided with a reasonable opportunity to recover at least the efficient costs the service provider incurs in—
>
> (a) providing reference services; and

(b) complying with a regulatory obligation or requirement or making a regulatory payment.

(3) A service provider should be provided with effective incentives in order to promote economic efficiency with respect to reference services the service provider provides. The economic efficiency that should be promoted includes—

(a) efficient investment in, or in connection with, a pipeline with which the service provider provides reference services; and

(b) the efficient provision of pipeline services; and

(c) the efficient use of the pipeline.

(4) Regard should be had to the capital base with respect to a pipeline adopted—

(a) in any previous—

(i) full access arrangement decision; or

(ii) decision of a relevant Regulator under section 2 of the Gas Code;

(b) in the Rules.

(5) A reference tariff should allow for a return commensurate with the regulatory and commercial risks involved in providing the reference service to which that tariff relates.

(6) Regard should be had to the economic costs and risks of the potential for under and over investment by a service provider in a pipeline with which the service provider provides pipeline services.

(7) Regard should be had to the economic costs and risks of the potential for under and over utilisation of a pipeline with which a service provider provides pipeline services.

43. In addition to the NGL and NGR, the ERA must also take into consideration the *National Gas Access (WA) (Local Provisions) Regulations 2009*. These local regulations contain provisions, under Part 2, regulation 7, which consider the effect of reference tariffs on small use customers and retailers.

**7. Impact on small use customers and retailers to be taken into account**

(1) When exercising a discretion in approving or making an access arrangement for a distribution pipeline the ERA must take into account the possible impact of the proposed reference tariffs, the method of determining the tariffs and the reference tariff variation mechanisms on —

(a) users to whom gas is or might be delivered by means of a small delivery service provided for in the access arrangement; and

(b) small use customers to whom gas is or might be delivered by those users.

## *Changes to the regulatory framework*

44. In March 2019, the Australian Energy Market Commission (AEMC) made a final determination to make changes to the regulatory framework for covered transmission and distribution natural gas pipelines in Australia.[17] The specific changes to the NGR

[17] Australian Energy Market Commission, *Regulation of covered pipelines, Rule determination*, 14 March 2019 (online) (accessed May 2019).

are set out in *National Gas Amendment (Regulation of covered pipelines) Rule 2019 No.1*.[18] The new rules:[19]

- Set out a new process for determining which services will have reference tariffs set by the regulator. Reference tariffs are the prices that pipeline operators can charge their customers.
- Clarify how regulators calculate efficient costs so reference tariffs can be set at more efficient levels.
- Strengthen reporting obligations to support more balanced negotiations. Pipeline owners will be required to provide more relevant, timely and accessible information for pipeline users through the Natural Gas Bulletin Board or on the pipeline owners' websites.
- Give stakeholders, including pipeline users, more input into regulators' decisions.
- Set a clear trigger for pipeline users to start arbitration if negotiations fail.

45. Most of the new rules commenced on 21 March 2019, including new transitional provisions. Transitional rule 61 (in schedule 1) of the NGR applies to the GDS, which provides for exemptions from the new rules made under Parts 8, 9 and 10 of the NGR.

> **61 Application of Amending Rule to Mid-West and South-West Gas Distribution Systems**
>
> (1) The amendments to Parts 8, 9 and 10 of the Rules made by the Amending Rule does not apply to the Mid-West and South-West Gas Distribution Systems in respect of the access arrangement for that pipeline for the next access arrangement period.

46. The amendments to Part 8 (access arrangements), Part 9 (price and revenue regulation) and Part 10 (other provisions of and concerning the access arrangement) of the NGR cover most of the rule changes that were made. Unless otherwise stated, references to the NGR in this final decision are references to the rules that applied at the time ATCO submitted its initial access arrangement proposal to the ERA.[20]

## *Content of an access arrangement*

47. ATCO is required to submit a "full access arrangement" for the GDS. Section 2 of the NGL specifies a full access arrangement to be an access arrangement that:

- Provides for price or revenue regulation as required by the NGR.
- Deals with all other matters for which the NGR require provisions to be made in an access arrangement.

48. The required content of a full access arrangement proposal is specified in rule 48 of the NGR. Table 1 details the required content and indicates where the ERA has considered the content in this final decision.

[18] Australian Energy Market Commission, *National Gas Amendment (Regulation of covered pipelines) Rule 2019 No.1* (online) (accessed May 2019).

[19] Australian Energy Market Commission, 'Regulation of covered pipelines' (online) (accessed May 2019).

[20] NGR, version 38.

**Table 1: Required content of a full access arrangement**

| National Gas Rule | Requirement | Document reference |
|---|---|---|
| 48(1)(a) | Identify the pipeline to which the access arrangement relates and include a reference to a website at which a description of the pipeline can be inspected. | Paragraph 52 |
| 48(1)(b) | Describe the pipeline services the service provider proposes to offer to provide by means of the pipeline. | Paragraph 71 |
| 48(1)(c) | Specify the reference services. | Paragraph 71 |
| 48(1)(d)(i) | Specify for each reference service, the reference tariff. | Paragraph 1697 |
| 48(1)(d)(ii) | Specify for each reference service, the other terms and conditions on which the reference service will be provided. | Paragraph 1888 |
| 48(1)(e) | If the access arrangement is to contain queuing requirements, set out the queuing requirements. | Not applicable |
| 48(1)(f) | Set out the capacity trading requirements. | Paragraph 2091 |
| 48(1)(g) | Set out the extension and expansion requirements. | Paragraph 2102 |
| 48(1)(h) | State the terms and conditions for changing receipt and delivery points. | Paragraph 2148 |
| 48(1)(i) | If there is to be a review submission date, state the review submission date and the revision commencement date. | Paragraph 52 |
| 48(1)(j) | If there is to be an expiry date, state the expiry date. | Not applicable |

49. Rule 43(1) of the NGR requires ATCO to submit "access arrangement information" with its proposal. The NGR define access arrangement information as "information that is reasonably necessary for users and prospective users" to understand the background to the access arrangement, and the basis and derivation of various elements of the access arrangement (rule 42(1) of the NGR).

50. The specific requirements for access arrangement information relevant to price and revenue regulation is set out in rule 72 of the NGR and is reproduced in Table 2.

**Table 2: Requirements for access arrangement information relevant to price and revenue regulation**

| National Gas Rule | Requirement for Access Arrangement Information (AAI) [21] |
|---|---|
| 72(1)(a) | If the access arrangement period commences at the end of an earlier access arrangement, AAI must include:<br>Capital expenditure (by asset class) and operating expenditure (by category) over the earlier access arrangement period.<br>Usage of the pipeline over the earlier access arrangement period showing: |

[21] On 8 April 2019, the binding rate of return instrument came into operation in Western Australian. There were several consequential changes to the NGR. Rules 72(1)(g) and 72(1)(h) were amended and rule 72(1)(ga) was deleted. The summary in this table reflects the current wording of the rules.

| National Gas Rule | Requirement for Access Arrangement Information (AAI) [21] |
|---|---|
| | – For a distribution pipeline: minimum, maximum and average demand and customer numbers in total and by tariff class.<br>– For a transmission pipeline: minimum, maximum and average demand for each receipt or delivery point and user numbers for each receipt or delivery point. |
| 72(1)(b) | AAI must include information on how the capital base is arrived at, and if the access arrangement period commences at the end of an earlier access arrangement, a demonstration of how the capital base increased or diminished over the previous period. |
| 72(1)(c) | AAI must include the projected capital base over the access arrangement period, including:<br>A forecast of conforming capital expenditure for the period and the basis for the forecast.<br>A forecast of depreciation for the period, including a demonstration of how the forecast is derived on the basis of the proposed deprecation method. |
| 72(1)(d) | To the extent it is practicable to forecast capacity and utilisation over the access arrangement period, AAI must include a forecast of pipeline capacity and utilisation of pipeline capacity over the period and the basis on which the forecast has been derived. |
| 72(1)(e) | AAI must include a forecast of operating expenditure over the access arrangement period and the basis on which the forecast has been derived. |
| 72(1)(f) | AAI must include the key performance indicators to be used by the service provider to support the expenditure to be incurred over the access arrangement period. |
| 72(1)(g) | AAI must include the allowed rate of return for each regulatory year of the access arrangement period. |
| 72(1)(h) | AAI must include the estimated cost of corporate income tax, calculated in accordance with rule 87A, including the allowed imputation credits referred to in that rule. |
| 72(1)(i) | If an incentive mechanism operated in the previous access arrangement period, the AAI must include the proposed carry over of increments or decrements for efficiency gains or losses, and a demonstration of how an allowance is to be made for any such increments or decrements. |
| 72(1)(j) | AAI must include the proposed approach to setting tariffs including:<br>The suggested basis of reference tariffs, including the method used to allocate costs and a demonstration of the relationship between costs and tariffs.<br>A description of any pricing principles employed, but not otherwise disclosed. |
| 72(1)(k) | AAI must include the service provider's rationale for any proposed reference tariff variation mechanism. |
| 72(1)(l) | AAI must include the service provider's rational for any proposed incentive mechanism. |
| 72(1)(m) | AAI must include the total revenue to be derived from pipeline services for each regulatory year of the access arrangement period. |

# Key dates and identification of the pipeline

52. The NGR require an access arrangement to "identify the pipeline to which the access arrangement relates and include a reference to a website at which a description of the pipeline can be inspected" (rule 48(1)(a)).

> **48 Requirements for full access arrangement (and full access arrangement proposal)**
>
> (1) A full access arrangement must:
>
> (a) identify the pipeline to which the access arrangement relates and include a reference to a website at which a description of the pipeline can be inspected; and
>
> …

53. The NGR also require an access arrangement to contain a review submission date and a revision commencement date (rule 49(1)(a)).

> **49 Review submission, revision commencement and expiry dates**
>
> (1) A full access arrangement (other than a voluntary access arrangement):
>
> (a) must contain a review submission date and a revision commencement date; and
>
> (b) must not contain an expiry date.
>
> (2) An access arrangement to which this subrule applies:
>
> (a) may contain a review submission date or both a review submission date and an expiry date; and
>
> (b) must, if it contains a review submission date, contain a revision commencement date; and
>
> (c) must, if it contains no review submission date, contain an expiry date.
>
> (3) Subrule (2) applies to:
>
> (a) a full access arrangement that is a voluntary access arrangement; and
>
> (b) a limited access arrangement for a light regulation pipeline.

54. Rule 3 of the NGR defines 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.

55. Rule 50 details further provisions for a review submission date and revision commencement date.

> **50 Review of access arrangements**
>
> (1) As a general rule:
>
> (a) a review submission date will fall 4 years after the access arrangement took effect or the last revision commencement date; and

(b) a revision commencement date will fall 5 years after the access arrangement took effect or the last revision commencement date.

(2) If a service provider, as part of an access arrangement proposal, proposes to fix a review submission date and a revision commencement date in accordance with the general rule, the [ERA] must accept that part of the proposal.

(3) The [ERA] has no discretion under subrule (2).

(4) The [ERA] may, however, approve dates that do not conform with the general rule if satisfied that they are consistent with the national gas objective and the revenue and pricing principles.

## *ATCO's initial proposal*

56. Part 3 of ATCO's proposed access arrangement identifies the relevant pipeline as "the Mid-West and South-West Gas Distribution System (formally known as the WAGN GDS) owned by ATCO Gas Australia Pty Ltd", or the "AGA GDS". A description of the AGA GDS is available at: www.atcogas.com.au

57. ATCO proposed a five-year period for the fifth access arrangement period (AA5), which compared with a five-and-a-half-year period for the fourth access arrangement (AA4) that was adopted to align the regulatory years with ATCO's calendar year financial reporting. ATCO proposed:

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

## *Draft decision*

58. Rule 48(1)(a) of the NGR requires ATCO to identify the pipeline to which the access arrangement relates, and to reference a website where a description of the pipeline can be inspected. ATCO satisfied these requirements in Part 3 of the access arrangement by referring to the ATCO Gas Australia website (www.atcogas.com.au).

59. The ERA identified two webpages that provided descriptions of the pipeline.[22] The ERA considered that while it may be beneficial for ATCO to provide a specific URL for the webpage where the description of the pipeline is for the purpose of the access arrangement, a generic website reference accommodated future updates and/or upgrades to ATCO's website that may occur during the access arrangement period.

60. ATCO's proposed review submission date and revision commencement date were specified in Part 2 of the access arrangement.

- The proposed review submission date of 1 September 2023 was less than four years after the last revision commencement date (being 1 January 2020).
- The proposed revision commencement date of 1 January 2025 was five years after the last revision commencement date (being 1 January 2020).

[22] The following webpages provide some context of the pipeline:

- http://www.atcogas.com.au/About-Us/Access
- http://www.atcogas.com.au/About-Us/Coverage-Maps

61. ATCO's review submission date did not conform to the general rule of being four years after the last revision commencement date. However, the proposed date was consistent with the national gas objective and revenue and pricing principles because it allowed a more realistic timeframe for the consideration of proposed revisions to the access arrangement. For this reason, the ERA approved ATCO's proposed review submission date.

62. ATCO's proposed revision commencement date conformed to the general rule of being five years after the last revision commencement date. For this reason, the ERA had to accept the proposed date because it has no discretion under rule 50(2) of the NGR (rule 50(3)).

## *ATCO's response to the draft decision*

63. ATCO did not make any further amendments to the proposed review submission date or revision commencement date.

## *Submissions to the ERA*

64. No submissions to the ERA addressed ATCO's initial proposal for the identification of the pipeline or proposed review submission and revision commencement dates.

65. There were no submissions in response to the draft decision.

## *Final decision*

66. There were no submissions from interested parties on the matter of the identification of the pipeline to which the access arrangement relates. The ERA maintains its draft decision that ATCO's generic website reference (where a description of the pipeline can be inspected) complies with the requirements of the NGR.

67. ATCO did not revise its proposal for a review submission date of 1 September 2023 and a revision commencement date of 1 January 2025. There were no submissions from interested parties on this matter.

68. Although ATCO's review submission date does not conform to the general rule of being four years after the last revision commencement date, the proposed date is consistent with the national gas objective and revenue and pricing principles because it allows an adequate timeframe for the consideration of proposed revisions to the access arrangement for the next access arrangement period.

69. ATCO's proposed revision commencement date conforms to the general rule of being five years after the last revision commencement date.

70. The ERA maintains its draft decision position that ATCO's proposed review submission and revision commencement dates comply with the requirements of the NGR.

# Pipeline and reference services

71. The NGR require an access arrangement proposal to describe the pipeline services the service provider proposes to offer by means of the pipeline (rule 48(1)(b)) and to specify the reference services (rule 48(1)(c)).

> **48 Requirements for full access arrangement (and full access arrangement proposal)**
>
> (1) A full access arrangement must:
>
> (a) …
>
> (b) describe the pipeline services the service provider proposes to offer to provide by means of the pipeline; and
>
> (c) specify the reference services; and

72. "Pipeline service" is defined in Part 1 (section 2) of the National Gas Law (NGL) as a service that is provided by means of a pipeline including a haulage service, an interconnection service, or an ancillary service. A pipeline service does not include the production, sale or purchase of natural gas.

73. "Reference service" is defined in rule 101 of the NGR as pipeline service that is likely to be sought by a significant part of the market.

> **101 Full access arrangement to contain statement of reference services**
>
> (1) A full access arrangement must specify as a reference service:
>
> (a) at least one pipeline service that is likely to be sought by a significant part of the market; and
>
> (b) any other pipeline service that is likely to be sought by a significant part of the market and which the [ERA] considers should be specified as a reference service.

## *ATCO's initial proposal*

74. ATCO proposed to retain its existing reference services for the fifth access arrangement period (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 Part 4 of the access arrangement.

75. 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 3.

**Table 3: ATCO's proposed haulage reference services for AA5**

| Reference service | Description |
|---|---|
| A1 | 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:<br>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<br>The prospective user is reasonably expected to require a contracted peak rate of 10 GJ or more per hour; and<br>The prospective user requests user-specific delivery facilities. |
| A2 | 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:<br>Either (or both):<br>– 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; [or][23]<br>– An Above 10 TJ Determination was, or was likely to have been, made under the Retail Market Procedures (WA); and<br>The prospective user requests user specific-delivery facilities. |
| B1 | 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:<br>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<br>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 ($m^3$/h) or more. |
| B2 | 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 $m^3$/h and less than 18 $m^3$/h. |
| 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 12$m^3$/h.<br>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 *National Gas Access (WA) (Local Provisions) Regulations 2009*. |

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

[23] ATCO incorrectly used the word "and" in its proposed drafting for the description of the A2 service in the access arrangement information. The ERA confirmed this error with ATCO (response to *ERA Information Request 25*, 24 October 2019) and has corrected the drafting in this decision document to use the word "or", which is consistent with the drafting in clause 4.3(a)(i)(B) of the proposed access arrangement.

76. ATCO's proposed ancillary reference services are shown in Table 4. The ancillary services are the same as those applying in the fourth access arrangement period (AA4), with the addition of a special meter reading service.

77. 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.

**Table 4: 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.*

78. ATCO proposed to continue to offer the following non-reference services:

- upgrading meter size
- disconnecting service in the street
- after-hours priority restoration of gas supply
- special meter reading at an appointed time.

79. These non-reference services are additional services that do not form part of ATCO's reference services. ATCO proposed to continue to negotiate the price for these services directly with the retailer/user.[24]

[24] ATCO, *2020-24 Plan (Access Arrangement Information)*, p. 51.

## Draft decision

80. The proposed new special meter reading reference service is currently a non-reference service in the AA4 access arrangement. ATCO reclassified the service to a reference service for AA5 because retail competition in the residential gas market increased the volume of special meter readings. ATCO submitted that the volume of special meter readings increased from 12,457 in 2013 to over 119,000 in 2017 and it expected this volume to continue into AA5.[25]

81. ATCO's reason for reclassifying the special meter reading service from a non-reference service to a reference service satisfied the definition for a reference service. The service was likely to be sought by a significant part of the market. The increase in the number of special meter reads between 2013 and 2017 was significant and the volume of reads was expected to continue to grow during AA5.

82. Submissions to the ERA that addressed the matter of pipeline and reference services supported ATCO's proposal to reclassify the special meter reading service. However, there were differing opinions about the corresponding proposed tariff.[26] AGL Energy submitted that the tariff was consistent with the charges of other gas distribution providers, while Kleenheat disagreed. The ERA addressed the proposed tariff for the special meter reading service as part of its considerations on ATCO's proposed reference tariffs (see paragraph 1697).

83. AGL further submitted that the special meter reading service should have a clear cancellation window where no charge was incurred. The ERA addressed this recommendation as part of its considerations of ATCO's proposed terms and conditions that are set out in the schedules to the template service agreement, which applies to each of the reference services (see paragraph 2056).

84. AGL also indicated its preference for the introduction of:

- Published price lists for non-reference services (such as meter upgrades and street disconnections) rather than negotiated prices.
- An enhanced street disconnection service that used an installed street valve to disconnect or reconnect a customer, rather than excavation.

85. The ERA considered that the opportunity for customers to directly negotiate with ATCO to determine the price for a non-reference service, and negotiate the nature of the service itself, allowed unique operational circumstances to be considered. Such price and service negotiations were consistent with the national gas objective. While a published price list for non-reference services may provide price certainty to some customers, there was no requirement for ATCO to publish any such prices. Conversely, if ATCO decided to publish prices for non-reference services, these prices would fall outside the regulatory provisions of the access arrangement.

86. As highlighted by AGL, the volume of and demand for other non-reference services was likely to be small and would be inconsistent with the NGR definition of a reference service (being a pipeline service that is likely to be sought by a significant part of the market). Hence, the ERA considered that these services should remain as non-reference services.

[25] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 51.

[26] Submissions from AGL Energy, Alinta Energy and Kleenheat.

## ATCO's response to the draft decision

87. ATCO did not make any further amendments to the proposed reference services for AA5.

## Submissions to the ERA

88. Several submissions to the ERA addressed ATCO's initial proposal to retain the existing (AA4) reference services for AA5, with the addition of a new special meter reading service.[27] These submissions were considered as part of the ERA's draft decision.

89. Apart from a submission from AGL Energy, there were no other submissions in response to the draft decision that addressed the proposed pipeline and reference services. AGL's submission indicated its satisfaction with ATCO's decision to introduce a special meter reading reference service and the ERA's draft decision to allow it.[28]

## Final decision

90. ATCO did not revise its proposal for pipeline and reference services. Other than the submission from AGL, there were no submissions from interested parties on the ERA's draft decision that addressed pipeline and reference services. AGL's submission did not raise any additional matters for consideration.

91. For the above reasons, the ERA maintains its draft decision position that ATCO's proposal to retain its existing reference services for AA5, with the addition of a new special meter reading service, meets the requirements of the NGR.

[27] Submissions from AGL Energy, Alinta Energy and Kleenheat.

[28] AGL Energy submission, 9 July 2019.

# Demand forecasts

92. Rule 72 of the NGR contains requirements for access arrangement information relevant to demand forecasts, including:

> **72 Specific requirements for access arrangement information relevant to price and revenue regulation**
>
> (1) The access arrangement information for a full access arrangement proposal (other than an access arrangement variation proposal) must include the following:
>
> (a) if the access arrangement period commences at the end of an earlier access arrangement period:
>
> …
>
> (iii) usage of the pipeline over the earlier access arrangement period showing:
>
> (A) For a distribution pipeline, minimum, maximum and average demand…
>
> (B) For a distribution pipeline, customer numbers in total and by tariff class…
>
> …
>
> (d) to the extent it is practicable to forecast pipeline capacity and utilisation of pipeline capacity over the access arrangement period, a forecast of pipeline capacity and utilisation of pipeline capacity over that period and the basis on which the forecast has been derived; …

93. Rule 74 of the NGR contains specific requirements for the provision of forecasts and estimates:

> **74 Forecasts and estimates**
>
> (1) Information in the nature of a forecast or estimate must be supported by a statement of the basis of the forecast or estimate.
>
> (2) A forecast of estimate:
>
> (a) must be arrived at on a reasonable basis; and
>
> (b) must represent the best forecast or estimate possible in the circumstances.

## *ATCO's initial proposal*

94. ATCO developed demand forecasts for its haulage references services and ancillary reference services for the fifth access arrangement period (AA5).

### *Haulage reference services*

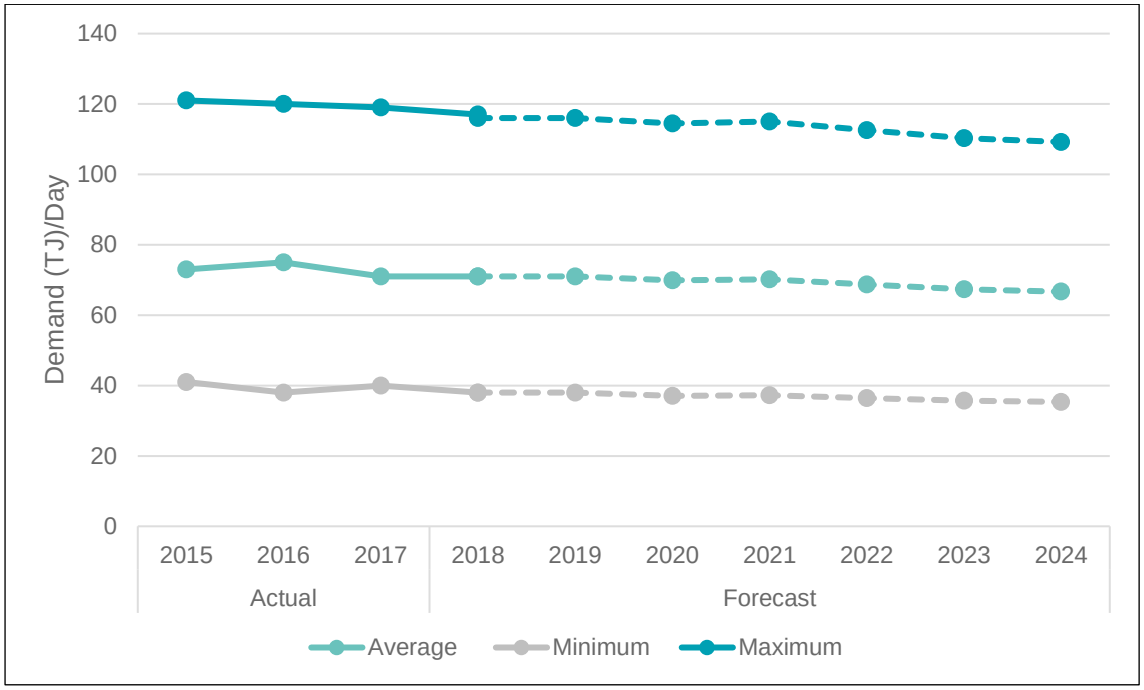
95. ATCO forecast total demand and average customer numbers by tariff class (A1, A2, B1, B2, B3) for each year of AA5.[29] Total gas demand was forecast to decrease by 1.1 per cent over AA5.[30] ATCO expected the minimum, maximum and average

[29] ATCO, *2020-24 Plan* (*Access Arrangement Information),* 31 August 2018, p. 59, Table 9.7.

[30] ATCO, *2020-24 Plan* (*Access Arrangement Information),* 31 August 2018, p. 59, Table 9.7.

demand to gradually decrease over the AA5 period (see Figure 1). The average use of the capacity of the network was forecast to decline over AA5.

**Figure 1 Actual and forecast average demand per day (TJ) (2014 to 2024)**




Source: ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 60, Figure 9.8.

96. ATCO developed its demand forecast method based on advice from consultant Core Energy Group, by:

- surveying A1 tariff customers to forecast consumption
- replacing annual weather normalisation with daily weather normalisation
- including the most recent customer consumption data for 2017.

97. ATCO continued to use an effective degree day method to estimate forecast gas consumption. The method aims to normalise the effect of weather on demand and increase consumption forecasting accuracy by incorporating climatic variables into the demand forecast (for example, sunshine hours, wind chill and seasonality).

98. ATCO forecast total consumption to decrease by 1.1 per cent over AA5.[31] The total usage of A1 and A2 (industrial) customers was forecast to decrease by 1.8 per cent and 2.3 per cent respectively. ATCO forecast A1 average customer numbers to decrease due to a business shutdown scheduled for 2022 and 2023, and A2 average customer numbers to remain unchanged during AA5. ATCO expected the volume per connection of space heating and water heating industrial customers to decrease over the AA5 period.[32]

99. ATCO forecast the total gas consumption of B1 and B2 commercial customers to increase by 1.3 per cent per year over AA5. The increase in total gas consumption

[31] ATCO, *2020-24 Plan* (*Access Arrangement Information)*, 31 August 2018, p. 59, Table 9.7.

[32] Core Energy Group, *AGA AA5 Gas Demand Forecast Report*, p. 14.

was expected to be primarily driven by B1 customer connection growth, which would offset a decrease in demand per connection.[33]

100. The forecast connection growth of commercial customers was slower than the fourth access arrangement period (AA4), due to ATCO's forecast of lower gross state product growth over AA5. ATCO said that two events contributed to strong commercial connections in the early years of AA4: the mining construction boom and new retail market competition with the entry of Kleenheat, AGL Energy and Origin Energy.

101. ATCO forecast the total gas consumption of B3 residential customers to decrease by 1.2 per cent over AA5. ATCO attributed the decline in average usage per B3 customers to increasingly efficient appliances, smaller dwelling sizes, a movement towards other energy sources (for example, electricity and solar), and a lower level of connections growth due to the following assumptions for the Western Australian economy over AA5:

- An expected decline in population growth over AA5, decreasing from 2.11 per cent in 2018/19 to 1.95 per cent from 2020 onwards.[34] This followed the downward trend in population growth between 2014 and 2016 after high economic growth from 2008 to 2013. ATCO used the Department of Planning, Lands and Heritage's forecast of the greater Perth population.[35] The Department of Treasury forecasts population growth in Western Australia to increase from 1.2 per cent in 2018/19 to 1.8 per cent in 2021/2022.[36]
- A decline in dwelling completions, although ATCO expected dwelling completions to increase slightly over AA5 once the current oversupply of dwellings was cleared.[37]

102. ATCO forecast total consumption of industrial (A1 and A2 tariffs) and residential (B3 tariff) customers to decrease over AA5, while commercial customers (B1 and B2 tariffs) would consume more gas over AA5 (Table 5).

[33] Core Energy Group, *AGA AA5 Gas Demand Forecast Report*, p. 17.

[34] Core Energy Group, *AGA AA5 Gas Demand Forecast Report*, p. 41.

[35] Core Energy Group, *AGA AA5 Gas Demand Forecast Report*, p. 41. The Australian Bureau of Statistics uses the term 'Greater Perth' to describe Perth's Greater Capital City Statistical Area, which is a geographical area designed to represent the functional extent of Western Australia's capital city.

[36] Department of Treasury Western Australia, *Government Mid-year Financial Projections Statement December 2018*, p. 3.

[37] Core Energy Group, *AGA AA5 Gas Demand Forecast Report*, p. 19.

**Table 5: ATCO's initial forecast gas consumption (TJ) over AA5**

| Tariff class | 2020 | 2021 | 2022 | 2023 | 2024 | CAGR[A] (%) |
|---|---|---|---|---|---|---|
| A1 (industrial) | 9,828 | 10,066 | 9,649 | 9,270 | 9,143 | -1.8 |
| A2 (industrial) | 1,669 | 1,630 | 1,592 | 1,555 | 1,519 | -2.3 |
| B1 (commercial) | 2,094 | 2,133 | 2,168 | 2,200 | 2,223 | 1.5 |
| B2 (commercial) | 1,419 | 1,436 | 1,453 | 1,469 | 1,477 | 1.0 |
| B3 (residential) | 9,891 | 9,758 | 9,634 | 9,518 | 9,421 | -1.2 |
| **Total** | **24,901** | **25,023** | **24,496** | **24,011** | **23,782** | **-1.1** |

*A. CAGR = Compound Annual Growth Rate*

Source: ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p.59, Table 9.7. Some numbers may not add due to rounding.

103. ATCO forecast total customer numbers to increase by 1.6 per cent over AA5 (Table 6).[38] ATCO's forecast showed that the industrial customer base was expected to decline (A1 tariff) or remain unchanged (A2 tariff), but commercial and residential customers were expected to increase over AA5.

**Table 6: ATCO's initial forecast customer numbers 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*, 2020-24 Plan (Access Arrangement Information),* 31 August 2018, p. 59, Table 9.7. Some numbers may not add due to rounding.

**The forecast A1 customer base numbers do not include prudent discounts.*

## *Ancillary reference services*

104. ATCO proposed to continue offering the same ancillary reference services in AA5 that it offered for AA4, but with the addition of a special meter reading service. The ancillary services ATCO proposed included:[39]

- Applying a meter lock: apply a lock to a valve that is part of the delivery facility, in order to prevent gas from being received at the corresponding delivery point. This service applies to B2 and B3 customers.

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

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

- Removing a meter lock: remove a lock that has been applied to a valve to prevent gas from being received at the corresponding delivery point. This service applies to B2 and B3 customers.
- Deregistering a delivery point: deregister a delivery point permanently by removing the delivery facility, removing the delivery point (in accordance with the Retail Market Procedures) and removing the delivery point from the delivery register. This service applies to all customers.
- Disconnecting a delivery point: disconnect a delivery point physically to prevent gas from being delivered to the delivery point. This service applies to B2 and B3 customers.
- Reconnecting a delivery point: reconnect a delivery point to allow gas to be delivered to the delivery point. This service applies to B2 and B3 customers.
- Special meter reading: a reading of a standard gas meter that occurs outside of the regular cycle. This service applies to B1, B2 and B3 customers.

105. ATCO reclassified the special meter reading service from a non-reference service to a reference service, as this service was likely to be sought by a larger proportion of the market during AA5.[40] During AA4, increased competition in the residential gas retail market increased the demand for special meter readings.[41] ATCO expected that increased demand to continue into AA5. However, ATCO stated that the "special meter reading at an appointed time" service would remain classified as a non-reference service due to its expected low volumes.[42]

106. ATCO forecast demand for its ancillary services across all categories, which largely reflected B3 connections. ATCO applied the forecast compound annual growth in B3 customers of 1.6 per cent per year to its forecast demand for ancillary services over AA5 (Table 7).

**Table 7: ATCO's initial forecast demand for ancillary services over AA5**

| Ancillary service | 2020 | 2021 | 2022 | 2023 | 2024 | CAGR (%) |
|---|---|---|---|---|---|---|
| Applying a meter lock | 8,900 | 9,042 | 9,188 | 9,338 | 9,490 | 1.60 |
| Removing a meter lock | 7,589 | 7,711 | 7,835 | 7,963 | 8,093 | 1.60 |
| Deregistering a delivery point | 2,240 | 2,276 | 2,313 | 2,350 | 2,389 | 1.60 |
| Disconnecting a delivery point | 3,461 | 3,517 | 3,574 | 3,632 | 3,691 | 1.60 |
| Reconnecting a delivery point | 2,488 | 2,528 | 2,569 | 2,611 | 2,653 | 1.60 |
| Special meter reading | 96,436 | 97,980 | 99,563 | 101,183 | 102,838 | 1.60 |

Source: ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 61, Table 9.9.

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

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

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

# Draft decision

## Haulage reference services

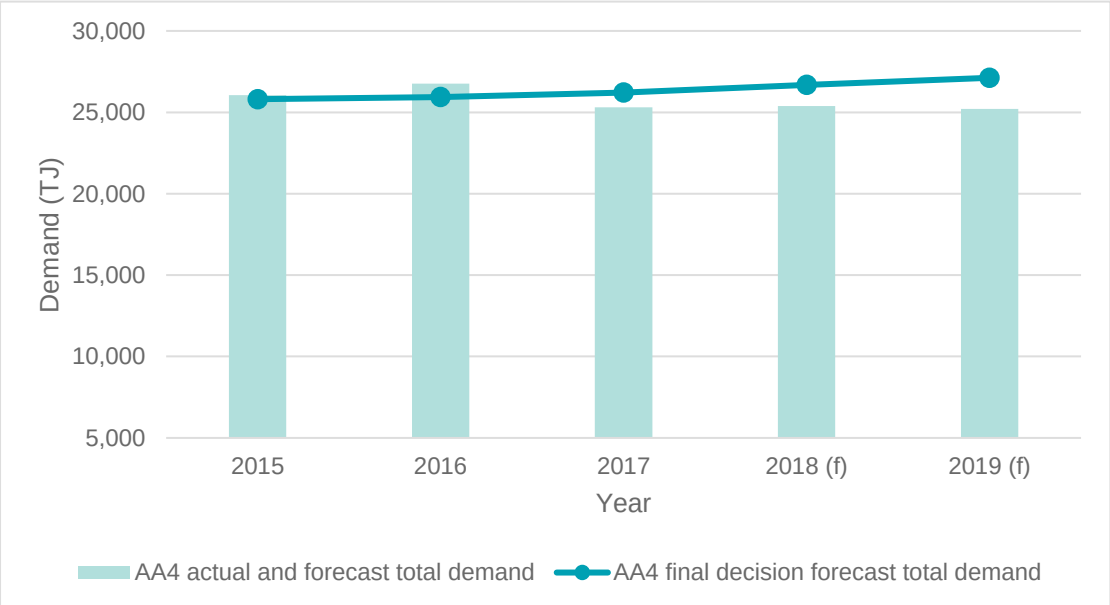
107. The ERA assessed ATCO's demand forecast of haulage reference services over AA5 and noted the following:

- The projected decrease of total gas demand across all tariff classes over AA5 was largely a reflection of the trend decline in average volume per customer in B2 (commercial) and B3 (residential) tariff class since 2008.
- ATCO's forecast indicated that new residential customer connections would increase by 1.6 per cent over AA5. However, the growth rate of new B3 connections during AA5 was expected to be lower than the growth over AA4.
- ATCO used weather-normalised data in 2017 as a base to forecast its customer connection number and volume per connection for all tariff classes and the 2017 actual data for the assumption variables (for example, gross state product) from 2018 to 2024.

108. The ERA acknowledged that 2017 customer consumption data was the most recent data available when ATCO submitted its proposal. However, actual 2018 customer consumption and economic data would be available after the publication of ERA's draft decision. The ERA considered that actual data for 2018 should be used to amend ATCO's demand forecast for the AA5 final decision to ensure that the AA5 forecast represented the best estimate under rule 74(2)(b) of the NGR.

109. Figure 2 shows the difference between ATCO's actual and estimated total demand and the AA4 final decision forecast total demand. While the total actual demand in 2015 and 2016 was slightly higher than the final decision forecast, actual gas consumption started to decrease in 2017. ATCO expected this downward trend would continue in 2018 to 2019.

**Figure 2 AA4 final decision forecast total demand and AA4 actual and ATCO estimated total demand**

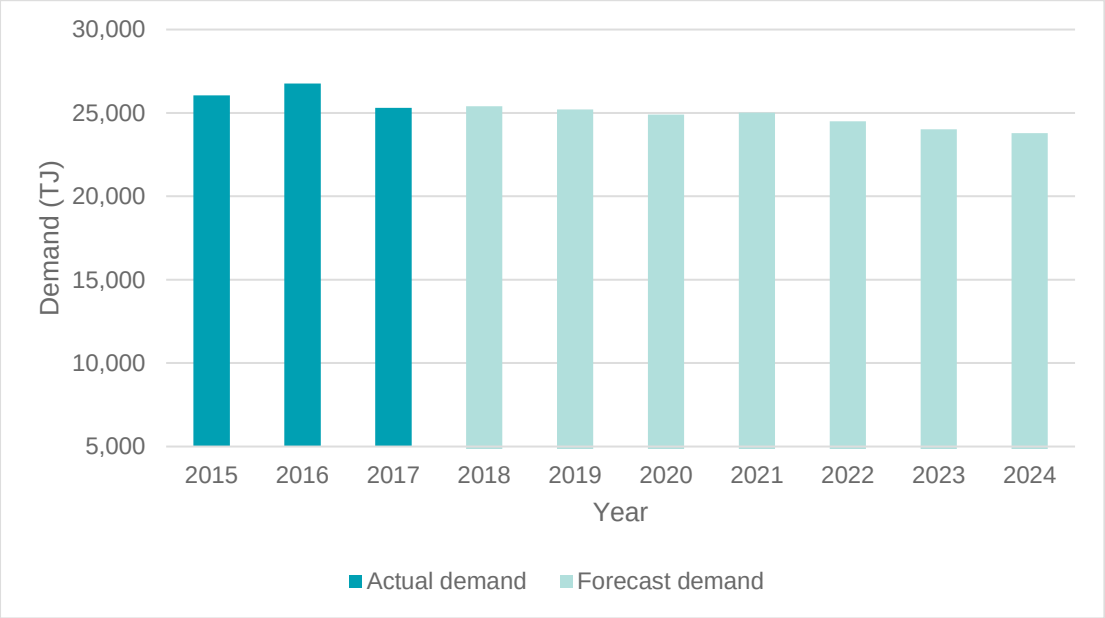



*Source: ERA analysis, based on ATCO, 2020-2024 Plan (Access Arrangement Information), 31 August 2018, p. 54, Table 9.2, and ERA, Access Arrangement Information for the Mid-West and South-West Gas*

*Distribution Systems, revised by reason of and pursuant to orders of the Australian Competition Tribunal made on 13 July 2016, p. 12, Table 13.*

110. ATCO forecast the declining trend for total gas demand to continue during AA5. It forecast a decline of total demand over AA5 from 25, 303 TJ in 2017, to 23,782 TJ by 2024 (see Figure 3).[43] This was largely driven by a significant decline in average volume across commercial and residential customers in 2018 and 2019, with further declines expected over AA5.

**Figure 3 ATCO actual and forecast total demand for all customers**




*Source: ERA analysis, based on ATCO, 2020-2024 Plan (Access Arrangement Information), 31 August 2018, p. 54, Table 9.2 and p. 59, Table 9.7, and ERA, Access Arrangement Information for the Mid-West and South-West Gas Distribution Systems, revised by reason of and pursuant to orders of the Australian Competition Tribunal made on 13 July 2016, p. 12, Table 13.*

111. While expecting demand per connection to decrease across almost all tariff classes during AA5, ATCO forecast that total new commercial and residential customer connections would increase by 1.6 per cent for B3 customers, 2.5 per cent for B2 customers, and 3.3 per cent for B1 customers. While ATCO expected A2 industrial customer connections to remain the same over AA5, A2 gas consumption was forecast to decrease by 2.3 per cent per year during AA5. In its initial proposal, ATCO also expected A1 industrial customer connections to decrease by 1.1 per cent per year, and gas consumption to decrease by 1.8 per cent per year during AA5 (see paragraphs 102 and 103).

### *Assessment of ATCO's A1 and A2 demand forecast*

112. ATCO surveyed A1 and A2 customers to collect annual consumption volume data, including data from the larger industrial customers. For industrial customers, generally accepted industry practice is to use a survey to inform demand forecasts as this provides a better estimation of demand from large A1 customers. ATCO forecast B1 customer connections based on a moderate growth rate for the AA5 period, compared to relatively high connection growth over AA4. ATCO explained

[43] ATCO, *2020-24 Plan (Access Arrangement Information),* 31 August 2018, Table 9.2 and Table 9.7.

that two factors contributed to the growth rate during AA4: increased economic activity and increased retail competition following the entry of new gas retailers.

113. In its AA5 proposal, ATCO responded to the ERA's recommendation in the AA4 final decision by factoring the effect of economic conditions in its demand forecast of A2, B1 and B2 customers. For example, ATCO undertook econometric testing to assess the effect of economic conditions on commercial customer connections for its AA5 forecast. As discussed at paragraph 108, the ERA considered that inclusion of the most recent gas demand and economic data for 2018 would assist the ERA to better assess the correlation between economic conditions and gas usage during AA5, and determine whether ATCO's demand forecast represented the best estimate under rule 74(2)(b) of the NGR.

114. Given the size and concentration of industrial customers, the ERA requested that ATCO survey those customers to forecast the consumption for A1 and A2 customers in its AA4 final decision, rather than using a linear trend through the historical data as the basis of ATCO's forecasts.[44] ATCO accepted the ERA's recommendation and surveyed its industrial customers to forecast gas consumption during AA5.

115. ATCO's A1 demand forecast was based on large industrial customers requiring more than 35 TJ per year, including manufacturing operations, construction, chemicals and minerals processing.[45] Smaller A1 and A2 customers use gas for large-scale space heating and water heating, including shopping centres, hotels and hospitals. [46]

116. ATCO reviewed the list of its A1 and A2 customers for January 2018 and sorted those customers by industry sector. After compiling the historical consumption data of A1 and A2 customers, ATCO identified new connections and disconnections expected to occur during the forecast period and used the survey data and comments made by industrial customers to adjust the gas consumption and connection forecast for AA5. While A1 gas consumption was expected to remain static for most industrial customers during AA5, ATCO forecast the total gas consumption of A1 customers to decrease at an average rate of 1.76 per cent, largely due to a scheduled disconnection in 2022 and 2023.

117. ATCO's A2 demand forecast included an assessment of the relationship between economic activity and gas consumption by industry sector. ATCO used the gross value-added data by industry segment from the Australian Bureau of Statistics (ABS) to undertake a regression analysis against gas consumption.[47] A statistically significant relationship exists only between historical gas consumption and gross value added of the manufacturing segment. ATCO stated that gross state product was also used as a predictor of A2 gas consumption but did not find any robust and reliable statistical relationship.[48]

118. A survey of large customers provided the necessary information to understand the planned future demand for A1 customers and subsequently derived a better

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44 ERA, *AA4 Final Decision on Proposed Revisions to the Access Arrangement for the Mid-West and South-West Gas Distribution Systems*, p. 45.

45 Core Energy Group, *AGA AA5 Gas Demand Forecast Report*, p. 55.

46 Core Energy Group, *AGA AA5 Gas Demand Forecast Report*, p. 55.

47 The ABS defines 'gross value added' as the value of output at basic prices minus the value of intermediate consumption at purchasers' prices. This term is used to describe gross product by industry and by sector.

48 Core Energy Group, *AGA AA5 Gas Demand Forecast Report*, p. 33.

estimation of industrial gas consumption for the AA5 period than using only historical data.

### *Assessment of ATCO's B1, B2 and B3 demand forecast*

119. In the AA4 final decision, the ERA noted that ATCO's demand forecast lacked a consideration of the effect of economic growth on B1 and B2 consumption. In its AA5 proposal, ATCO undertook econometric analysis to test the relationship between gross state product and commercial consumption and the relationship between business numbers in greater Perth and commercial consumption.[49] ATCO found that the economic effect applied only to commercial connections, not volume per commercial connection.[50]

120. The ERA considered that ATCO's demand forecast for B2 and B3 customers did not meet rule 74 of the NGR. ATCO's AA5 forecast assumed that it was not constrained in its ability to meet the demand for connections of new B2 and B3 customers. Specifically, the ERA determined that ATCO's proposed AA5 greenfields and brownfields growth capital expenditure did not meet the incremental revenue test under rule 79(2)(b) of the NGR and should not be rolled into the regulatory asset base for AA5 (see discussion at paragraphs 955 to 998). As a result, the associated connection and usage assumed by ATCO for its B2 and B3 customers over AA5 was not reasonable pursuant to rule 74 (2)(a) of the NGR.

121. ATCO's forecast for B1 and B2 connections included two statistical relationships: commercial connection forecast and gross state product, and commercial connection forecast and greater Perth business numbers. ATCO used the corresponding coefficients from those statistical analyses to forecast the growth of B1 and B2 connections for AA5.

122. ATCO forecast usage per B1 and B2 new and existing connection based on weather-normalised demand data and other factors that affected usage per connection, such as own-price and cross-price elasticity effect on usage.

123. ATCO accounted for the effect of gross state product and business numbers in the greater Perth area on its B1 demand forecast. The ERA considered this was a better approach to reflect the responsiveness of gas demand to economic conditions over AA5.

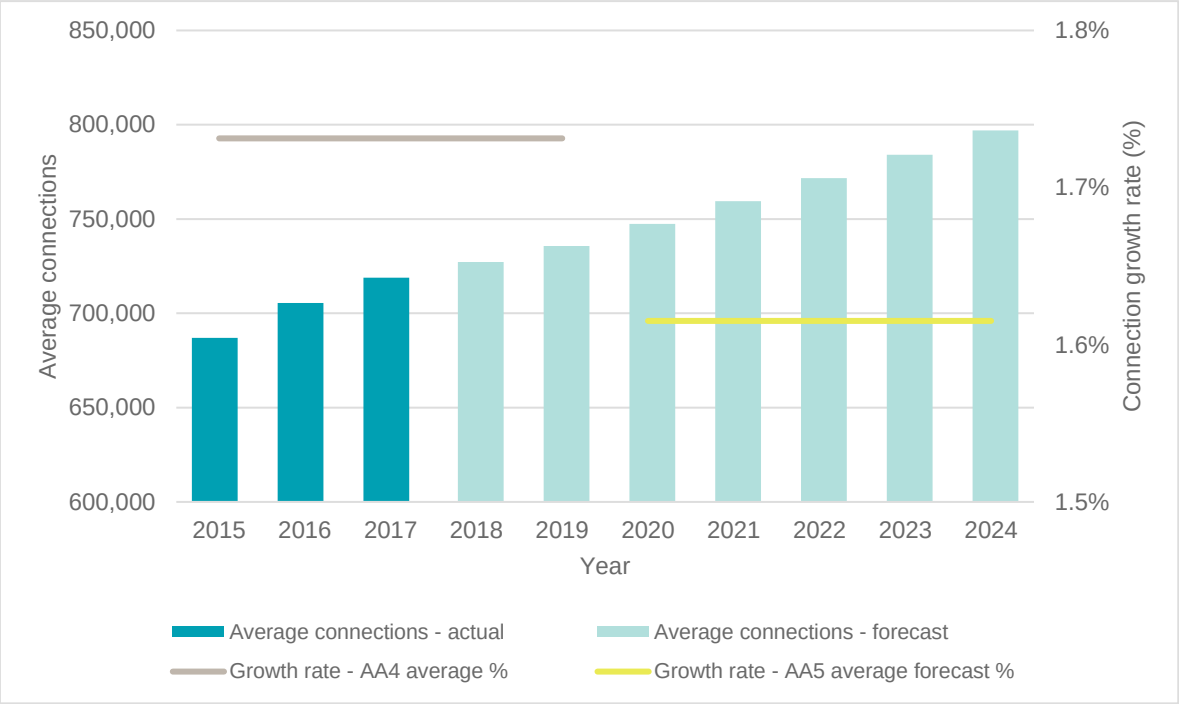
124. Figure 4 shows that ATCO's initial proposal forecast new B3 average connections to increase by around 1.6 per cent per year during AA5 (yellow line), compared with a growth rate of around 1.75 per cent over AA4 (grey line). The projected connection growth over AA5 is largely a reflection of ATCO's projected population growth and dwelling completions for Perth through to 2024. ATCO's forecast also included consideration of 5,500 zero-volume gas users disconnecting during AA5.[51]

[49] The ABS uses the term 'Greater Perth' to describe Perth's Greater Capital City Statistical Area, which is a geographical area designed to represent the functional extent of Western Australia's capital city.

[50] Core Energy Group, *AGA AA5 Gas Demand Forecast Report*, p. 107.

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

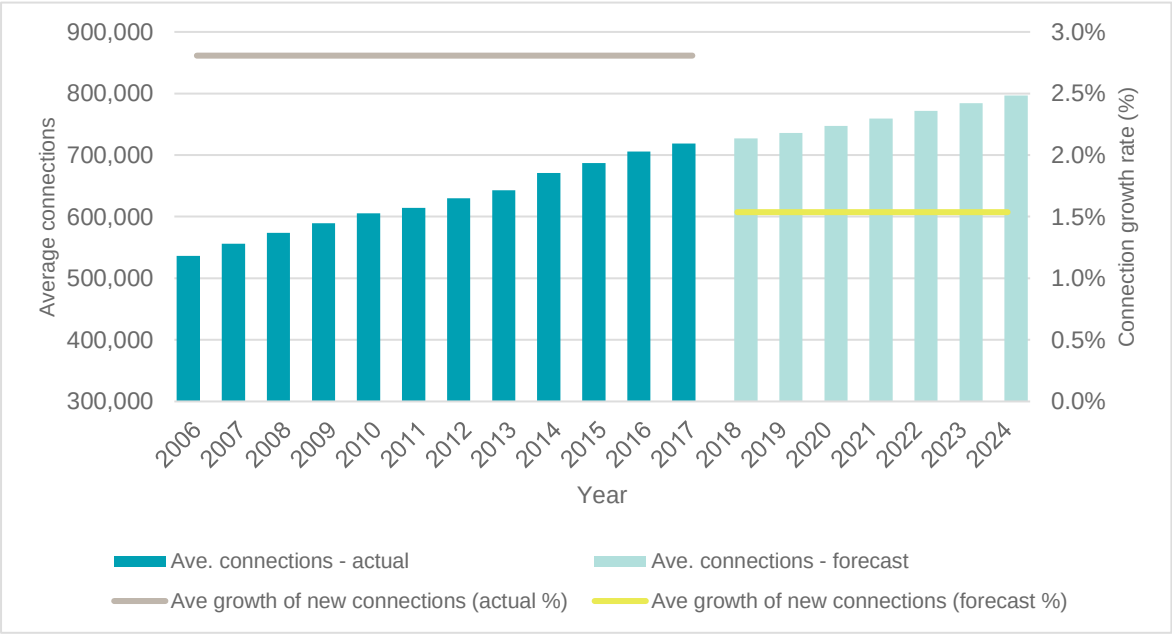
**Figure 4 Actual and forecast connections for B3 customers, and B3 connection growth rate over AA4 and AA5**




*Source: ERA analysis, based on ATCO, 2020-2024 Plan (Access Arrangement Information), 31 August 2018, p. 54, Table 9.2 and p. 59, Table 9.7.*

125. The ERA observed that the steady decline in connecting new residential customers over AA5 appears to follow a longer-term trend as shown in Figure 5, with the actual average growth rate decreasing from 2.8 per cent per year between 2006 and 2017 (grey line), to around 1.5 per cent during the forecast period from 2018 to 2024 (yellow line).

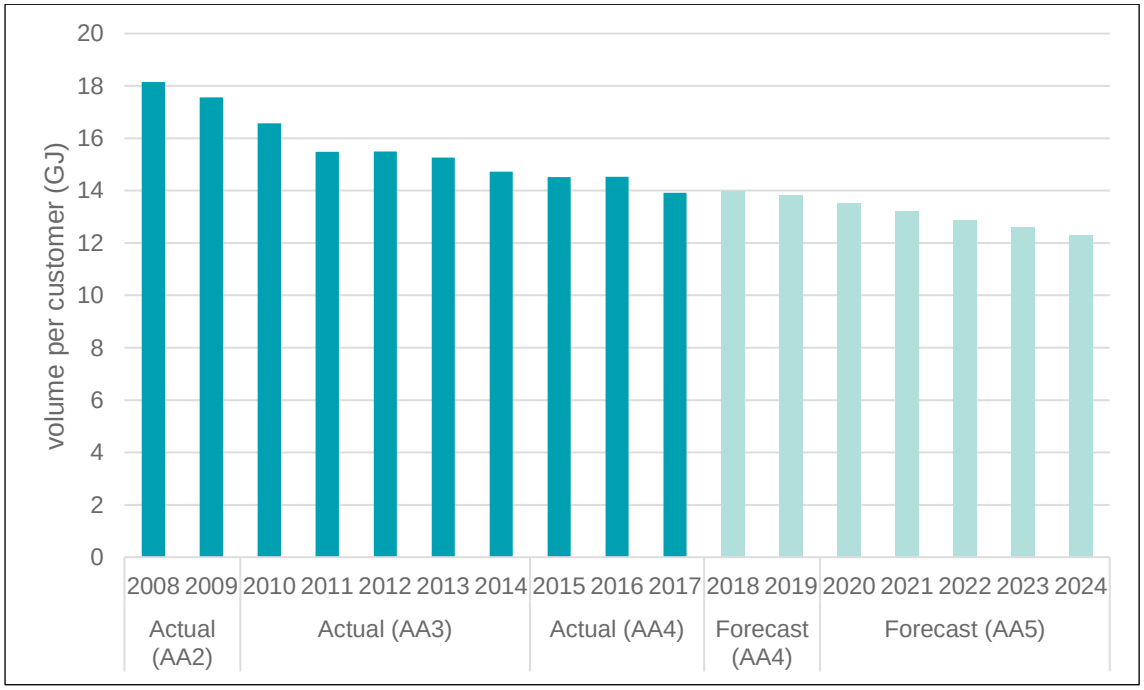
**Figure 5 ATCO's actual and estimated growth rate for new B3 connections**




*Source: ERA Analysis, based on ATCO's revenue and pricing model.*

126. Figure 6 indicates a steady decrease in volume per residential customer (both existing and new customers) from the second access arrangement period (AA2) to AA5, reducing from around 20 GJ in 2005 to less than 12 GJ in 2024. Core Energy's report indicated the factors that led to the expected reduction in gas consumption per connection, such as energy efficiency, appliance substitution and dwellings with fewer gas appliances.[52] Based on the weather-normalised demand data, volume per existing connection was expected to decrease from 13.9 GJ in 2017 to 12.3 GJ in 2024. ATCO forecast gas usage for new B3 customers to decline steadily each year during AA5 from 9.51 GJ per customer in 2020 to 9.14 GJ per customer in 2024.[53]

**Figure 6 ATCO's actual and forecast B3 volume per customer (2008 to 2024)**




*Source: ERA Analysis, based on ATCO's* revenue and pricing model and Core's demand forecast model.

127. Despite the projected increase for new B3 connections, ATCO's initial proposal expected that the decreasing volume per B3 connection would reduce total gas consumption of its B3 customers during AA5. Figure 7 shows the actual and estimated gas consumption for B3 residential customers during AA4 and ATCO's forecast of residential gas consumption over AA5, reducing from around 10,000 TJ in 2018 to less than 9,400 TJ in 2024.

[52] Core Energy Group, *AGA AA5 Gas Demand Forecast Report*, p. 44.

[53] Core Energy Group, *AGA AA5 Gas Demand Forecast Report*, pp. 43-44. The numbers quoted are based on mature customers. Core Energy defines a mature customer as a customer that connects two years prior.

**Figure 7 ATCO actual and forecast total demand for B3 residential customers**


*Source*: *ERA analysis, based on ATCO, 2020-2024 Plan (Access Arrangement Information), 31 August 2018, p. 54, Table 9.2 and p. 59, Table 9.7, and ERA, Access Arrangement Information for the Mid-West and South-West Gas Distribution Systems, revised by reason of and pursuant to orders of the Australian Competition Tribunal made on 13 July 2016, p. 12, Table 13.*

128. ATCO's projected growth over AA5 assumed that ATCO was not constrained in its ability to meet the demand for connections of new B2 and B3 customers. However, the ERA's draft decision considered that ATCO's proposed greenfields and brownfields growth capital expenditure was not conforming capital expenditure. The ERA considered that ATCO's initial proposal for AA5 greenfields and brownfields growth capital expenditure did not meet the incremental revenue test under rule 79(2)(b) of the NGR and should not be rolled into the regulatory asset base for AA5.

129. As a result, the ERA's draft decision removed the associated customers and usage assumed by ATCO for its proposed greenfields and brownfields growth capital from the demand forecast used. Specifically, the ERA revised ATCO's B2 and B3 demand forecast by:

- Reducing ATCO's greenfield connections forecast from 1,555 to zero for B2 new connections, and from 77,414 to zero for B3 new connections over AA5 and removing the associated gas usage.
- Reducing ATCO's brownfields connections forecast from 465 to zero for B2 new connections, and from 3,599 to zero for B3 new connections over AA5 and removing the associated gas usage.
- Adjusting ATCO's forecast of the average usage per B2 and B3 connection per year by using the average connection number, rather than ATCO's approach of using the closing connections per year. The use of average connections (an average of the number of opening and closing connections) as the mid-point is appropriate for tariff revenue calculation. The use of either the opening or closing connection number would overestimate or underestimate the tariff revenue during the year.

130. The ERA applied ATCO's following assumptions to the revised B2 and B3 demand forecast for the draft decision:

- B2 disconnection rate of 0.6 per cent per year and B3 disconnection rate of 0.5 per cent per year.[54] The B3 disconnection includes ATCO's forecast of removing 5,500 zero-volume consumption meters in 2018.[55]
- ATCO's forecast of usage per B2 existing connection per year and the usage per B3 existing connection per year over AA5.[56]

131. Table 8 shows the cumulative decrease of B2 and B3 average connection numbers over AA5. The ERA's draft decision amended forecast also reflected the B2 and B3 disconnections per year over AA5, and the removal of ATCO's proposed new B2 and B3 greenfields and brownfields connections per year over AA5.

**Table 8: ERA's draft decision amended forecast for B2 and B3 average connection numbers over AA5**

| | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| **B2 tariff class** | | | | | |
| ATCO's forecast | 12,527 | 12,850 | 13,190 | 13,528 | 13,850 |
| ERA's adjustment to ATCO's forecast | -190 | -588 | -1,005 | -1,422 | -1,825 |
| **Amended forecast** | **12,337** | **12,262** | **12,185** | **12,106** | **12,025** |
| **B3 tariff class** | | | | | |
| ATCO's forecast | 747,479 | 759,437 | 771,652 | 784,165 | 796,954 |
| ERA's adjustment to ATCO's forecast | -7,784 | -23,441 | -39,336 | -55,510 | -71,943 |
| **Amended forecast** | **739,695** | **735,996** | **732,316** | **728,655** | **725,011** |

*Source: ATCO, 2020-24 Plan (Access Arrangement Information), 31 August 2018, Table 9.7. p. 59. EMCa analysis; ERA, GDS Tariff Model, February 2019.*

132. Table 9 shows the cumulative decrease of B2 and B3 forecast gas usage over AA5. The decreasing demand is largely a reflection of the ERA's draft decision amended forecast for B2 and B3 customer numbers as discussed in paragraph 130.

[54] ERA analysis based on Core Energy Group's *AGA AA5 Gas Demand Forecast Report*, Table 5.2 and Table 6.6.

[55] Core Energy Group, *AGA AA5 Gas Demand Forecast Report*, p. 46. ATCO, *Access Arrangement Information*, p. 58.

[56] ERA analysis based on Core Report, Table 5.4 and Table 6.9.

**Table 9: ERA's draft decision amended forecast for B2 and B3 gas usage (TJ) over AA5**

| | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| **B2 tariff class** | | | | | |
| ATCO's forecast | 1,419 | 1,436 | 1,453 | 1,469 | 1,477 |
| ERA's adjustment to ATCO's forecast | -35 | -73 | -110 | -147 | -181 |
| **Amended forecast** | **1,384** | **1,363** | **1,343** | **1,322** | **1,296** |
| **B3 tariff class** | | | | | |
| ATCO's forecast | 9,891 | 9,758 | 9,634 | 9,518 | 9,421 |
| ERA's adjustment to ATCO's forecast | -90 | -179 | -321 | -465 | -611 |
| **Amended forecast** | **9,801** | **9,579** | **9,313** | **9,053** | **8,810** |

*Source: ATCO, 2020-24 Plan (Access Arrangement Information), 31 August 2018, Table 9.7. p.* 59. EMCa analysis; ERA, GDS Tariff Model, February 2019.

133. The ERA's draft decision adjusted demand forecast for AA5 is shown in Table 10.

**Table 10: ERA's draft decision amended GDS demand forecast for AA5**

| Tariff class | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| **A1** | | | | | |
| **Customers** | 72 | 72 | 71 | 69.5 | 69 |
| **Usage (TJ)** | 9,828 | 10,066 | 9,649 | 9,270 | 9,143 |
| **A2** | | | | | |
| **Customers** | 96 | 96 | 96 | 96 | 96 |
| **Usage (TJ)** | 1,669 | 1,630 | 1,592 | 1,555 | 1,519 |
| **B1** | | | | | |
| **Customers** | 1,816 | 1,885 | 1,949 | 2,010 | 2,069 |
| **Usage (TJ)** | 2,094 | 2,133 | 2,168 | 2,200 | 2,223 |
| **B2** | | | | | |
| **Customers** | 12,337 | 12,262 | 12,185 | 12,106 | 12,025 |
| **Usage (TJ)** | 1,384 | 1,363 | 1,343 | 1,322 | 1,296 |
| **B3** | | | | | |
| **Customers** | 739,695 | 735,996 | 732,316 | 728,655 | 725,011 |
| **Usage (TJ)** | 9,801 | 9,579 | 9,313 | 9,053 | 8,810 |
| **Total** | | | | | |
| **Customers** | 754,016 | 750,312 | 746,618 | 742,936 | 739,270 |
| **Usage (TJ)** | 24,776 | 24,771 | 24,064 | 23,399 | 22,991 |

*Source: ATCO, 2020-24 Plan (Access Arrangement Information), 31 August 2018, Table 9.7. p. 59. EMCa analysis; ERA, GDS Tariff Model, February 2019.*

134. The ERA used actual B2 and B3 data for 2017 as a base to adjust ATCO's demand forecast as it represented the most recent information available at the time of the draft decision. The ERA considered that actual 2018 data for all tariff classes, when available, should be provided and applied by ATCO to update the demand forecast for AA5. This would ensure that the demand forecast represented the best estimate as required under rule 74(2)(b) of the NGR. The ERA required the following amendment:

> **Draft Decision Required Amendment 1**
>
> ATCO must amend the gas distribution systems demand forecasts for the fifth access arrangement period in accordance with [the] draft decision, which includes updating the demand forecast to reflect 2018 actual data for all tariff classes.

### *Ancillary reference services*

135. ATCO used 2015 and 2016 data to determine all forecast ancillary services, except for special meter reading where it used data from 2016 and 2017. The ERA did not consider that using these years to determine forecast demand represented the best forecast possible in the circumstances as required by rule 74(2)(b).

136. The ERA considered that actual data for 2017 should be used as the basis for all ancillary services as it was the most recent information available. For example, special meter reading services increased from 63,077 in 2016 to 119,622 in 2017. This increase was largely due to retail churn as a result of increased competition in the retail market – Origin Energy and AGL entered the retail market in the second half of 2017 and Simply Energy entered in 2018. ATCO's use of 2016 data for special meter reading would be likely to lead to a large understatement of demand for special meter reading through the AA5 period. The ERA considered that the actual number of special meter readings during 2018 would be available to ATCO to forecast the number of special meter readings during AA5 in its response to the draft decision.

137. The ERA accepted that there was a relationship between the demand for ancillary services and the total B3 connections, and used the forecast total B3 connections for AA5, as listed in Table 10, to adjust the forecast for ancillary services.

138. The ERA adjusted ATCO's forecast demand for ancillary services by:

- Using the most recent ancillary service actual data for 2017 to forecast the B3 ancillary service demand during AA5.
- Calculating a ratio of the 2017 actual demand for each ancillary service to the total B3 connections in 2017.
- Applying the ratio for each ancillary service to the amended B3 connection forecast from 2020 to 2024.

139. Table 11 shows the ERA's draft decision amended forecast demand for ancillary services over AA5.

**Table 11: ERA's draft decision amended forecast demand for ancillary services over AA5**

| Ancillary service | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Applying a meter lock | 9,559 | 9,510 | 9,461 | 9,412 | 9,361 |
| Removing a meter lock | 8,756 | 8,712 | 8,667 | 8,622 | 8,575 |
| Deregistering a delivery point | 2,932 | 2,917 | 2,902 | 2,887 | 2,871 |
| Disconnecting a delivery point | 4,031 | 4,011 | 3,990 | 3,969 | 3,948 |
| Reconnecting a delivery point | 3,138 | 3,122 | 3,106 | 3,090 | 3,073 |
| Special meter reading | 122,109 | 121,493 | 120,866 | 120,229 | 119,582 |

*Source:* ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 61, Table 9.9; ERA analysis

140. As noted in paragraph 134, the ERA considered that actual 2018 data should be used to update the demand forecasts for haulage reference services. The ERA considered that actual 2018 data should also be used for the calculation of ancillary reference

services to ensure that the demand forecasts represent the best estimate as required under rule 74(2)(b) of the NGR. The ERA required the following amendment.

> **Draft Decision Required Amendment 2**
>
> ATCO must amend the demand forecast for ancillary services for the fifth access arrangement period in accordance with [the] draft decision, which includes updating the demand forecasts to reflect 2018 actual data.

## *ATCO's response to the draft decision*

141. ATCO submitted revised demand forecasts for AA5 that were based on expert advice from its consultant Core Energy, contained in an updated report in response to the ERA's draft decision and provided as supporting information to ATCO's revised proposal.[57]

142. ATCO updated the gas demand forecast to reflect the inclusion of 2018 actual data for all tariff classes. ATCO considered that its revised demand forecast was reasonable and met the requirements of rule 74 of the NGR. ATCO did not accept the removal of B2 and B3 new connections as required by the ERA due to greenfields and brownfields connections not meeting the requirement of the NGR. ATCO considered that these new connections were possible because the capital expenditure for these connections now met the rule requirements for conforming capital expenditure.

143. ATCO updated the ancillary services forecast to reflect 2018 actual data.

144. During AA5, the number of customers is forecast to grow at an annual rate of 1.4 per cent. Consumption per customer during AA5 is forecast to decline, resulting in a decline in overall consumption forecast at an annual rate of 0.7 per cent.

### *A1, A2 and B1 demand forecast*

145. ATCO implemented the ERA's draft decision recommendation for A1, A2 and B1 tariff classes. ATCO partially implemented the ERA amendment for B2 and B3 demand, except for the requested removal of B2 and B3 gross connections.

146. ATCO incorporated actual gas demand and economic data for 2018 into the revised forecast and noted that:[58]

- Core Energy's forecast for 2018 was largely in line with actual gas demand, except for A1 gas demand.
- The elevated A1 demand was largely reflective of three large industrial customers exceeding their forecast volumes. The A1 forecast was accordingly revised upwards in line with recent trends.
- Both A2 and B1 demand were within 1 per cent of the original Core Energy forecast. ATCO updated the forecast to include the most recent data for 2018, as required in the draft decision.

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57 ATCO, *2020-24 Revised Plan (Access Arrangement Information),* 12 June 2019, *Attachment 07.100 CORE: Demand Forecast Report – AA5*, 12 June 2019.

58 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, pp. 71-72.

### *B2 and B3 demand forecast*

147. ATCO incorporated actual gas demand and economic data for 2018 and revised its initial forecast. ATCO did not remove greenfield and brownfield connections as it considered the related capital expenditure now met the rule requirements to be considered as conforming capital expenditure (rules 74 and 79 of the NGR). ATCO submitted:[59]

> New B3 gross connections in 2018 of 12,487 was 980 connections below our submission forecast. Considering this variance and the EMCa critiques, Core [Energy] has revised its methodology on B3 gross connections and disconnections. This revision has aligned the projected B3 gross connections with the medium-term housing outlook and reduced our forecast new B3 gross connections by 15,850 to 65,164 connections over AA5.

### *Ancillary services demand*

148. ATCO updated its ancillary services demand forecast for all categories to include actual quantities up to 2018. ATCO noted that the "deregistering a delivery point" service was adjusted to normal levels from 2020 onwards.

### *Revised demand forecasts*

149. Table 12 summarises ATCO's revised demand forecasts for AA5.

[59] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 72.

**Table 12 ATCO's revised demand forecasts for AA5**

| Tariff class | 2020 | 2021 | 2022 | 2023 | 2024 | CAGR (%) |
|---|---|---|---|---|---|---|
| **A1** | | | | | | |
| Average customer base | 75 | 75 | 75 | 74 | 74 | -0.3 |
| Demand (TJ) | 11,538 | 11,851 | 11,509 | 11,201 | 11,141 | -0.9 |
| **A2** | | | | | | |
| Average customer base | 106 | 106 | 107 | 107 | 108 | 0.5 |
| Demand (TJ) | 1,819 | 1,801 | 1,784 | 1,767 | 1,750 | -1.0 |
| **B1** | | | | | | |
| Average customer base | 1,780 | 1,834 | 1,888 | 1,943 | 1,999 | 2.9 |
| Demand (TJ) | 2,112 | 2,150 | 2,191 | 2,225 | 2,247 | 1.6 |
| **B2** | | | | | | |
| Average customer base | 12,239 | 12,519 | 12,796 | 13,096 | 13,402 | 2.3 |
| Demand (TJ) | 1,373 | 1,387 | 1,404 | 1,418 | 1,425 | 0.9 |
| **B3** | | | | | | |
| Average customer base | 741,392 | 750,024 | 760,302 | 771,444 | 782,696 | 1.4 |
| Demand (TJ) | 9,774 | 9,634 | 9,534 | 9,406 | 9,321 | -1.2 |
| **Total** | | | | | | |
| **Average customer base** | **755,589** | **764,556** | **775,165** | **786,662** | **798,277** | **1.4** |
| **Demand (TJ)** | **26,616** | **26,823** | **26,422** | **26,016** | **25,884** | **-0.7** |

*Source: ATCO, 2020-24 Revised Plan (Access Arrangement Information),* 12 June 2019, *p. 74, Table 7.7.*

150. Ancillary services relate mainly to B3 connections. As a result, the forecast level of ancillary services is correlated to the forecast growth in B3 customers of 1.4 per cent per year as shown in the Table 13. The forecast is based on B3 forecast connections multiplied by factors for each ancillary service provided by ATCO.

**Table 13 ATCO's revised ancillary services demand forecasts for AA5**

| Ancillary service | 2020 | 2021 | 2022 | 2023 | 2024 | CAGR (%) |
|---|---|---|---|---|---|---|
| Applying a meter lock | 9,346 | 9,465 | 9,604 | 9,745 | 9,886 | 1.4 |
| Removing a meter lock | 8,092 | 8,195 | 8,315 | 8,437 | 8,560 | 1.4 |
| Deregistering a delivery point | 2,216 | 2,244 | 2,277 | 2,310 | 2,344 | 1.4 |
| Disconnecting a delivery point | 3,652 | 3,699 | 3,753 | 3,808 | 3,864 | 1.4 |
| Reconnecting a delivery point | 2,933 | 2,970 | 3,014 | 3,058 | 3,102 | 1.4 |
| Special meter reading | 125,211 | 126,804 | 128,664 | 130,548 | 132,445 | 1.4 |

Source: ATCO, *2020-24 Revised Plan (Access Arrangement Information),* 12 June 2019, p. 75, Table 7.9.

## *Submissions to the ERA*

151. AGL Energy, Alinta Energy and Kleenheat made submissions addressing the demand forecasts in ATCO's initial proposal.

- AGL noted that ATCO had signalled significant decreases in demand for AA5. As a new entrant with a small customer base, AGL submitted that it was difficult for it to provide a rigorous analysis of ATCO's gas forecasts. AGL submitted that ATCO's gas forecast and weather normalisation strategy appeared to be reasonable and matched industry standards. However, AGL submitted that it was not confident that a forecast of higher business connections would be the result of an increasing gross state product and considered the forecast upward trend in the number of commercial and small business customers was moderately optimistic.[60]
- Alinta submitted that ATCO's forecast average demand per residential customer was significantly less than its own forecasts, which were based on active consuming customers. Alinta agreed with ATCO's normalisation of the effect of weather on demand but noted that lower prices tended to lead to higher demand. Alinta submitted that it did not anticipate a significant decline in average demand per customer, as suggested by ATCO, with five gas retailers actively competing for residential customers by offering considerable discounts.[61]
- Kleenheat questioned the reasonableness of the demand forecasts (in particular the relatively steep decline in B3 demand per customer) but did not provide further information to elaborate on its position.[62]

152. AGL and Alinta made further submissions in response to the ERA's draft decision and ATCO's revised proposal.

[60] AGL Energy, *Submission on proposed revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020-2024*, 14 November 2018, p. 2.

[61] Alinta Energy, *Submission on proposed revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020-2024*, 14 November 2018, pp. 3-4.

[62] Kleenheat, *Submission on the proposed revised access arrangement for the Mid-West and South-West Gas Distribution Systems*, 13 November 2018.

- AGL supported the ERA's required amendments for ATCO to update its demand forecasts to reflect 2018 data to allow for the most up-to-date information regarding customer connection and consumption data and demand for ancillary services to be applied. AGL noted that ATCO's revised proposal accepted this and updated its forecasting in line with the required amendments.[63]
- Alinta's submission requested a close review of ATCO's revised proposal for AA5. Alinta considered that:[64]
  - ATCO's average forecast demand for B3 customers over AA5 was too low. Alinta did not agree with the significant year-on-year decline of 2.6 per cent in average demand suggested by ATCO. Alinta considered it essential that the B3 demand forecast be as accurate as possible as it was a factor in determining reference tariffs.
  - ATCO could over-recover as much as $43 million, approximately $11 per customer each year, over AA5 if the actual B3 customer demand is closer to that forecast by Alinta. This revenue over-recovery would be generated entirely from the top B3 consumption tier.
  - Some $14 million may have been over-recovered during AA4 due to actual demand being higher than the ERA-approved forecast demand.
  - Significant network price increases would ultimately affect residential customers when retailers seek to moderate their discounted retail offers to accommodate the increases.

### *ATCO's late submission response to Alinta*

153. Following Alinta's submission to the draft decision, ATCO submitted a late response in which it stated:[65]

- Alinta's historical average consumption per customer was higher than ATCO's actual AA4 data from 2015 to 2018. ATCO believed this may be due to Alinta including some B2 customers in its residential customer grouping, thereby resulting in a higher average consumption per customer. ATCO submitted that this meant Alinta's historical baseline for the forecast was not comparable to ATCO's B3 demand forecast and therefore cannot be used to infer a forecast over-recovery for B3 customers.
- Alinta forecast usage per customer to increase from 2018 (actual) to 2019/2020 (forecast). This contradicted the historical decline in B3 average consumption. Alinta did not provide any supporting rational for a reversal of this trend. ATCO submitted that the increase seemed unlikely given several trends such as smaller dwellings, increasingly efficient appliances and competition from competing renewable energy sources.

154. In Alinta's submission, Alinta's forecast usage per customer over 2020 to 2024 was higher than ATCO's 2017 and 2018 actual average consumption per customer. This may be due to the data sources not being comparable (for instance, Alinta including

63 AGL Energy, *Submission on ERA Draft Decision on ATCO 2020-2024 Access Arrangement (AA5)*, 9 July 2019, p. 2.

64 Alinta Energy, *Submission on Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024*, 15 July 2019.

65 ATCO, *Attachment 07.101 Response to the Alinta/Kleenheat Comments on ATCO's Revised Plan*, 31 July 2019.

some B2 customers within its residential customer segment). ATCO suggested that this resulted in an unsupported assumption of increasing average gas demand for residential users. ATCO submitted: [66]

> Based on these shortfalls, the B3 average demand outlook presented by Alinta (figure 3 [of the Alinta submission]) does not appear to form a reasonable basis for comparison to ATCO's submitted demand forecast. We refer the reader to ATCO's demand forecast as per the draft decision response which details the assumptions underpinning the demand forecast.[67]

155. ATCO disagreed with Alinta's proposed demand forecast due to discrepancies outlined below:

- Alinta's demand forecast commenced at [redacted] GJ/customer in 2020. This is higher than ATCO's 2018 average consumption of [redacted] GJ/customer (weather normalised). As noted, there was no supporting rationale for such an increase and such an uplift seems highly unlikely given market trends.
- Alinta stated that factors such as increasing retailer competition and discounts would lead to higher demand. ATCO noted that the Core Energy's demand forecast already incorporated price elasticities and therefore ATCO did not consider a decline of 0.6 per cent per year in average gas demand to be achievable over AA5.
- ATCO submitted that, based on these factors, the proposed average demand for B3 customers as presented by Alinta (Figure 4 and Table 6 in its submission) did not appear reasonable and would lead to a significant revenue under-recovery by ATCO over AA5. ATCO considered that Core Energy's expert report, which was updated in response to the ERA's draft decision, remained appropriate for the purpose of estimating the AA5 demand forecast.

### *Woollahra Partners report*

156. The ERA appointed Woollahra Partners to review ATCO's revised gas demand forecast model. Woollahra Partners' final report was provided to the ERA and published on the ERA website in September 2019.[68]

157. Woollahra Partners' report covered:

- drivers of the decline in B3 gas intensity[69]
- consistent customer cohort treatment in consumption growth estimates
- consideration of the best forecasts for housing completions.

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66 ATCO, *Attachment 07.101 Response to the Alinta/Kleenheat Comments on ATCO's Revised Plan*, 31 July 2019, p. iv.

67 Refer Core Energy report (Attachment 07.100: CORE Demand Forecast Report - AA5).

68 Woollahra Partners, *Review of ATCO's AA5 Gas Demand Forecasts: Report for Economic Regulation Authority*, 2 September 2019.

69 Gas intensity is the amount of gas to produce economic growth in the economy.

### *Drivers of decline in B3 gas intensity*

158. While Woollahra Partners stated that "the AA5 gas demand forecasting framework is reasonably applied" it considered that "the inclusion of an implicit trend in the model without strong justification [was] not advisable."[70]

> The optimal estimate of gas demand sensitivities should capture the dynamics of the evolving energy mix: including the concise interaction of heating / cooling and gas intensity at the household level, changes in the composition of existing dwellings and new dwellings over time. Further analysis and guidance are provided in section 2.1, section 2.5.1 and section 4 [of the Woollahra report].
>
> To the extent this issue is considered material, a better approach would entail analysing whether there is an omitted variable problem with the model. This analysis should be undertaken prior to introducing macroeconomic variables (or other) without strong theoretical justification.[71]

### *Consistent customer cohort treatment in consumption growth estimates*

159. Woollahra Partners recommended that "the treatment of cohorts in the estimation of growth rates should be consistently applied" and stated that, "B3 forecast connections notably adopt the customer cohort approach for new gas ramping based on ramp up growth and mature growth rates."[72]

160. Ramp up consumption reflects the time between connecting premises to the network and when customers move into their home, as well as whether the customer is connected for a full year. It can take up to two years before consumption is considered mature. The weighted combined consumption growth rate will, over time, capture the overall composite growth in the housing stock rather than only pre-2006 existing housing stock.

### *Consideration of the best forecasts for housing completions*

161. Woollahra Partners recommended that independent housing completion forecasts should be used instead of ATCO's proxy for housing completions.[73]

> ATCO use a 1-year lag of housing starts (commencements) to proxy for housing completions. However, evidence suggests not all commencements reach completion. To this end, independent housing completions forecasts should be used where available and these are obtained from BIS Oxford Economics.

## *Submissions in response to Woollahra Partners' demand forecast report*

162. ATCO and Alinta both made submissions in response to the Woollahra Partners report.[74]

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70 Woollahra Partners, *Review of ATCO's AA5 Gas Demand Forecasts: Report for Economic Regulation Authority*, 2 September 2019, p. 3.

71 The ERA considers that such analysis would cause significant delays for the completion for this access arrangement review, but should be considered for a subsequent access arrangement review.

72 Woollahra Partners, *Review of ATCO's AA5 Gas Demand Forecasts: Report for Economic Regulation Authority*, 2 September 2019, pp. 3 and 14.

73 Woollahra Partners, *Review of ATCO's AA5 Gas Demand Forecasts: Report for Economic Regulation Authority*, 2 September 2019, p. 15.

74 ATCO, *Submission on Woollahra Partners Review of ATCO's AA5 Gas Demand Forecasts*, 16 September 2019 and Alinta Energy, *Submission on Consultation – Demand Forecasts*, 16 September 2019.

### *ATCO's submission*

163. ATCO submitted that the Woollahra Partners report did not identify any reasons for the ERA to not accept ATCO's revised proposed demand forecast. ATCO noted that:

- Woollahra Partners observed that the demand forecast framework was reasonably applied by ATCO's revised proposal. Woollahra Partners stated "the AA5 gas demand forecasting framework is reasonably applied."
- The Woollahra Partners forecast of connections and total demand did not vary significantly from ATCO's. Therefore, ATCO considered that it did not warrant the substitution of Woollahra Partners' forecast for ATCO's forecast.
- Following an investigation on each of the matters raised by Woollahra Partners, Core Energy did not find any reason to vary its forecasting method or its demand forecast over AA5.

164. In response to the matters raised by the Woollahra Partners report, ATCO submitted:[75]

> Energy Intensity at the Household and Small Business Level – It is not appropriate to rely on State-wide energy intensity measures given ATCO's gas demand forecast accounts for less than 3% of the State-wide fuel consumption. The established drivers for energy intensity at the household and small business level are appliance efficiency and dwelling efficiency.
>
> Dwelling Completion Data & Application - Core Energy have correctly provided for non-completions in its forecast and we observe that there is no conclusive evidence that the BIS forecasts have outperformed the HIA forecasts. We are concerned that the BIS forecast incorporates 27% growth in 2022 without an explanation of what is driving this.
>
> B3 Cohort Treatment - ATCO submits that Woollahra have incorrectly applied a weighting of new and existing customer growth for B3 customers without full consideration of the reasons why Core Energy applied a different approach between B2 and B3 customers. Core Energy intentionally used a weighting method for B2 customers as new customer mature demand did not follow a declining trend in all years. However, given the consistent decline in new customer demand for B3 customers, Core Energy modelled new cohorts separately (i.e. not weighted). Woollahra's approach places an upward bias to the B3 demand forecast due to the issues highlighted by Core Energy that will not result in the best forecast. ATCO considers that the growth rate detailed in its 2020-24 Revised Plan has been arrived at on a reasonable basis and represents the best possible forecast in the circumstances.
>
> Incorporation of Gas Discounting - ATCO submits that Woollahra has incorrectly used the price elasticity co-efficient and maintain that Core Energy have correctly allowed for the retail discount in the gas price through the price elasticity coefficients adopted in the 2020-24 Revised Plan.

### *Alinta's submission*

165. Alinta made the following comments about declining usage trends and the effect of gas retail discounting.

> The Report notes that, whilst the AA5 gas demand forecasting framework has been reasonably applied by ATCO, the inclusion of an implicit trend in the model is not advisable without strong justification; gas demand decline may be more gradual than that implied by the trend and real evidence of competitive gas retail discounting also works against the decline.

[75] ATCO, *Submission on Woollahra Partners Review*, 16 September 2019, p. 2.

> Without data on household usage and appliance efficiency, Woollahra Partners warns against extrapolating a trend of declining usage over AA5, particularly where evidence of competitive gas retail discounting is shown to work against such a decline.
>
> Alinta Energy has already demonstrated to the ERA that B3 (residential) customers on a discounted product consume more, on average, than customers not on a discount. With an increasing number of customers signing up to discounted products both with Alinta Energy and with other retailers, Alinta would estimate that well over half of all residential customers in Western Australia are on a discounted product.
>
> We consider this increasing trend of customers taking up discounted products would contribute positively towards overall consumption over AA5 and work against the year-on-year decline in usage forecast by ATCO for B3 customers.[76]

166. Alinta also suggested that the effect of competitive gas retail discounting at a household level, which is shown to work against a decline in gas usage consumption, should be considered in the forecast of B3 usage. The consumption figures provided by Alinta Energy to the ERA provided real and measurable evidence that customers on a discounted product consumed more than customers not on a discount. As more than 50 per cent of households in Western Australia were on a discounted product, this effect was not insignificant.

167. Alinta considered that the B3 demand volume forecast for the start of AA5 in 2020 should be adjusted to better align with actual demand volumes over the current AA4 period. Alinta noted that this can be achieved by increasing the 2018 demand to better reflect the actual demand over that year and then applying more moderate usage trends.

## *Final decision*

### *Overview*

168. Table 14 compares customer usage forecasts for ATCO's initial and revised proposals against the ERA's draft decision and final decision forecasts. The reasons for the ERA's final decision on ATCO's customer usage follow in this section.

[76] Alinta Energy, *Submission on Consultation – Demand Forecasts*, 16 September 2019, p. 1 and 3.

**Table 14: Comparison of customer usage forecasts for AA5 (TJ)**

| | ATCO initial proposal | ERA draft decision | ATCO revised proposal | ERA final decision |
|---|---|---|---|---|
| A1 | 47,956 | 47,956 | 57,239 | 57,239 |
| A2 | 7,965 | 7,965 | 8,920 | 8,920 |
| B1 | 10,818 | 10,818 | 10,924 | 10,924 |
| B2 | 7,254 | 6,708 | 7,008 | 7,008 |
| B3 | 48,222 | 46,556 | 47,669 | 49,397 |
| **Total** | **122,213** | **120,001** | **131,761** | **133,489** |

Source: ATCO, *2020-24 Plan (Access Arrangement Information),* 31 August 2018, p. 61, Table 9.9; *ERA draft decision p. 31;* ATCO, *2020-24 Revised Plan (Access Arrangement Supplementary Information), 16.101 Tariff Model_ERA_DDr-4.0 Submitted,* 12 June 2019, p. 74. *Note: Customer usage is for the whole AA5 period.*

169. Table 15 shows the customer number forecasts from ATCO's initial and revised proposals and the ERA's draft decision and final decision. The reasons for the ERA's final decision on ATCO's customer number forecasts follow in the remainder of this section.

**Table 15: Comparison of forecast customer numbers at end of AA5**

| | ATCO initial proposal | ERA draft decision | ATCO revised proposal | ERA final decision |
|---|---|---|---|---|
| A1 | 69 | 69 | 74 | 74 |
| A2 | 96 | 96 | 108 | 108 |
| B1 | 2,069 | 2,069 | 1,999 | 1,999 |
| B2 | 13,850 | 12,025 | 13,402 | 13,402 |
| B3 | 796,954 | 725,011 | 782,696 | 783,000 |
| **Total** | **813,038** | **739,270** | **798,277** | **798,583** |

*Note: The customer numbers presented in the table are mid-point values for 2024 used in the tariff model to determine reference tariffs.*

Source: ATCO, 2020-24 Plan (Access Arrangement Information), *31 August 2018*, p. 61, Table 9.9., ERA Draft decision p. 31; *ATCO*, 2020-24 Revised Plan (Access Arrangement Information), *12 June 2019, p. 74*.

## *Haulage reference services*

170. In response to the draft decision, ATCO submitted revised demand forecasts for haulage reference services. These changes reflected the use of actual 2018 demand instead of forecast 2018 demand and the assumptions used by Core Energy in its revised report for ATCO in support of its response to the draft decision.[77] ATCO did

[77] Core Energy Report revised report in support of ATCO's Response to the ERA draft decision

not accept the removal of B2 and B3 new connections as required by the ERA in its draft decision. Based on the information provided in ATCO's initial proposal, the ERA in its draft decision did not consider that greenfield and brownfield capital expenditure met the requirements for addition to the projected capital base. As a result, the ERA did not include the associated customers and usages in the demand forecast for the draft decision. In its revised proposal, ATCO considers that these new connections were possible because the capital expenditure for these connections now met the NGR requirements to be considered conforming capital expenditure.

171. The ERA has considered ATCO's response to the draft decision, the Woollahra Partners report, stakeholder submissions and ATCO's and other stakeholder submissions in response to the Woollahra Partners report. The ERA considers that ATCO's revised forecasts in its response to the ERA draft decision forecasts for A1, A2, B1 and B2 gas consumption and for customer numbers have been arrived at on a reasonable basis (refer to paragraph 201) and represent the best forecast in the circumstances as required by rule 74 of the NGR. However, the ERA does not consider that ATCO's revised demand forecasts for B3 customers are the best forecasts in the circumstances. The ERA's reasoning is provided below.

## *B3 gas consumption forecasts*

172. Woollahra Partners considered that ATCO using a weather normalisation approach alone to help forecast gas consumption may not result in the best forecast of demand, as there might be other drivers of gas consumption apart from weather. Woollahra Partners suggested that further analysis would be required in order to test if there were other significant variables affecting gas consumption. However, given the complexity and research intensity of that exercise, this cannot be undertaken for this assessment and should be considered for gas consumption forecasts for AA6. Woollahra Partners' analysis included a review of state-wide energy intensity as a potential driver of gas demand. In its response to the Woollahra Partners report, ATCO considered that it was not appropriate to rely on state-wide energy intensity measures given that ATCO's gas demand forecast accounted for less than 3 per cent of state-wide fuel consumption. The ERA considers that there may be other explanatory factors driving gas demand as suggested in the Woollahra Partners report. However, it is not possible to discern without substantial research or data that there are other factors driving the trend in customers numbers and usage that would have a material effect on the forecasts. As a result, the ERA considers that the weather normalisation approach when combined with the application of price elasticity factors will provide the best estimate of gas demand for AA5.

### *Historical consumption per customer trend*

173. Woollahra Partners suggested that there was a break in the trend of per customer usage in 2006 due to a change in building standards that led to new customers consuming less than existing pre-2006 customers. ATCO's B3 demand forecasts did not adopt a customer cohort treatment for pre-2006 and post-2006 customers.

174. ATCO adopted a customer cohort treatment for its proposed B2 growth in consumption per connection for AA5 by weighting pre-2008 and post-2008 growth.[78] Woollahra Partners suggested that ATCO's proposed B3 growth in consumption per

[78] ATCO's B2 cohorts were based on a break in the series for B2 consumption in 2008 and Woollahra partners suggests that the same approach should be used for B3 customers for a break in the series in 2006.

connection should also adopt a customer cohort treatment by weighting pre-2006 and post-2006 growth.

175. Woollahra Partners noted the following on B3 cohorts:[79]

> A consistent approach should also be adopted for weighting pre-2006 and post 2006 B3 cohorts. B3 forecast connections notably adopt the cohort approach for new gas ramping based on ramp up growth and mature growth rates.

176. Using the weighting approach for B3 cohorts that it recommended, Woollahra Partners found that the historical rate of change in gas consumption per connection each year increased from minus 1.97 per cent as calculated by ATCO to minus 1.45 per cent. This historical rate of change is then applied each year to calculate B3 consumption per customer which determined total B3 consumption forecasts.

177. In its submission to the ERA on the Woollahra Partners report, ATCO disagreed with the B3 cohort treatment:

> ATCO submits that Woollahra have incorrectly applied a weighting of new and existing customer growth for B3 customers without full consideration of the reasons why Core Energy applied a different approach between B2 and B3 customers. Core Energy intentionally used a weighting method for B2 customers as new customer mature demand did not follow a declining trend in all years. However, given the consistent decline in new customer demand for B3 customers, Core Energy modelled new cohorts separately (i.e. not weighted). Woollahra's approach places an upward bias to the B3 demand forecast due to the issues highlighted by Core Energy that will not result in the best forecast. ATCO considers that the growth rate detailed in its 2020-24 Revised Plan has been arrived at on a reasonable basis and represents the best possible forecast in the circumstances.[80]

178. ATCO used the average per customer consumption for all customers to forecast gas consumption for the network. ATCO's consultant Core Energy stated that it qualitatively assessed the effect of energy policy initiatives including government-mandated increases in star ratings of new buildings in Western Australia. Core Energy indicated that government-mandated increases in star ratings decreased the gas demand of new homes. It follows from this relationship that a break in the series post-2006 for B3 customers would have occurred due to an increase in the star rating of new buildings coming into effect in 2006. Core Energy stated:

> Although it is possible to determine whether a specific policy is expected to increase, decrease or have no effect on gas demand in a qualitative sense, quantifying the effect poses a significant challenge due to the lack of adequate and consistent data. As a result, the following section focuses on a qualitative assessment of the impact of energy policy initiatives… The Government mandated an increase in Star Rating of new building in WA from 4 during 2003 to 2005 to 5 during 2006 to 2011... As of the 1st of May 2012, a further increase in Star Rating to 6 has been mandated, with potential to reach up to 7 or 8 by the end of the forecast period. Specifications for designing a 7-star home have been released by the government, however no implementation date has been announced for a switch from 6-star to 7-star standard.
>
> Based on NatHERS Star Band analysis, a standard Perth home is expected to use 21.3% less energy for temperature control when moving from a Star Rating of 5 to 6… This implies a significant reduction in the gas demand of new homes during the forecast period.[81]

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79 Woollahra Partners, *Review of ATCO's AA5 Gas Demand Forecasts: Report for Economic Regulation Authority*, 2 September 2019, pp. 13-14.

80 ATCO, *Submission on Woollahra Partners Review*, 16 September 2019, p. 2.

81 Core Energy Report in support of ATCO's response to the draft decision p. 107.

179. However, Core Energy did not apply a cohort treatment to forecast demand based on historical customer consumption. This means that new customers that had a different consumption-per-customer profile after 2006 were treated the same as existing customers pre-2006 that had a higher usage per customer profile. ATCO applied an overall trend to all customers regardless of whether they were existing pre-2006 customers or new customers post-2006.

180. ATCO separately derived B3 consumption forecasts for existing connections, new residential single dwelling connections (houses) and new residential multi-dwelling connections. ATCO aggregated these consumption values to derive its B3 consumption for each year of AA5. It calculated its consumption for B3 existing 2018 connections using the weather-normalised demand from 2018 and adjusted those forecasts for a historical declining trend and own-price and cross-price elasticity effects. However, this historical declining trend excluded the trend for all customers connected between 2007 and 2018. The trend was excluded by not applying the cohort analysis to B3 consumption.

181. Woollahra Partners adjusted the historical trend to include the trend for all customers connected by 2018. This means that Woollahra Partners calculated the average usage per customer for existing customers pre-2006 and for new customers post-2006. Woollahra Partners calculated the usage per customer based on the year they joined and incorporated a full usage per customer after two years, which was consistent with the Core Energy model assumption. This means that a new customer is not expected to use as much gas in the initial time after being connected and ramps up consumption to their peak demand after two years, which is consistent with the Core Energy model.

182. The ERA considers that applying the past trend for one cohort of customers on another cohort of customers will not deliver the best forecast of consumption as required by rule 74 of the NGR. As the consumption per customer for existing pre-2006 connected customers is declining faster than post-2006 connected customers, using the pre-2006 connected cohort to forecast a decline in the post-2006 cohort is likely to understate total forecast gas consumption for AA5. The best forecast in the circumstance is derived by applying a weighted average trend across both cohorts. The ERA considers that the weighted average trend better reflects the decline in usage per customer post-2006 and so provides a better forecast.

183. The ERA notes that ATCO was concerned that the Woollahra Partners approach places upward bias to the B3 demand forecasts as stated in paragraph 177 above. However, Woollahra Partners suggested that gas consumption for existing customers prior to 2006 was significantly different to gas usage post-2006 and should be factored into the forecast. This provides a more appropriate trend in gas consumption per customer to be built into gas forecasts. Such a forecast is therefore arrived at on a reasonable basis and represents the best forecast in the circumstances as required by rule 74 of the NGR.

### *Price elasticity*

184. The Core Energy demand model includes both own-price elasticity (the change in gas demand from a change in the price of gas) and cross-price elasticity (the change in gas demand from a change in the price of a substitute – electricity). Price elasticity is an established economic concept about how the price of a good, or the price of a substitute for that good, will affect the consumption of that good. Core Energy applied an elasticity factor, based on accepted factors in regulatory decisions by the

Australian Energy Regulator, to the annual real increase in gas and electricity prices to arrive at own-price and cross-price elasticity factors for gas consumption.

185. The ERA considers that elasticity factors used in Core Energy's model are reasonable. However, the ERA does not consider that the annual real increases in gas prices used for the calculation of the cross-price elasticity effect on demand are the best forecast available, as required by rule 74 of the NGR. Woollahra Partners suggested that the average bill could be adjusted to reflect retail gas discounts that have been available to residential gas consumers. In response to the Woollahra Partners report, ATCO stated that:

> Woollahra has incorrectly used the price elasticity co-efficient and maintain that Core Energy have correctly allowed for the retail discount in the gas price through the price elasticity coefficients adopted in the 2020-24 Revised Plan.[82]

186. The ERA requested information[83] from gas retailers on the gas discounts offered to B3 tariff customers and the percentage of customers that have taken up discounted offers, to calculate a weighted average bill for the average B3 customer. As noted by Alinta in its submission on the Woollahra Partners report, it has provided B3 gas consumption figures that it considered provided "real and measurable evidence that customers on a discounted product consume more than customers not on a discount. As more than 50 per cent of households in Western Australia are now on a discounted product, this effect is not insignificant."[84]

187. The ERA has used the following information to calculate the weighted average bill for B3 customers:

- the information provided by retailers on gas discounts
- the published maximum retail tariff for 2019[85]
- average usage per B3 customer.

188. Table 16 shows an example calculation of how the weighted average bill for 2018 for B3 customers, inclusive of discounts, is calculated for the ERA final decision demand model.

82 ATCO, *Submission on Woollahra Partners Review*, 16 September 2019, p. 2.

83 The ERA request to gas retailers supplied information to the ERA which shows the level of discounts provided to their customers E-mails dated 16 September.

84 Alinta Energy, *Submission on Woollahra Partners Review,* 16 September 2019, p. 3, Table 1.

85 The maximum retail tariff for B3 customers is published by Energy Policy WA.

**Table 16: Example of how the weighted average bill for B3 customers is calculated in ERA final decision demand model**

| | 2018 |
|---|---|
| Fixed supply charge (a) | 22 cents per day |
| First 12 units per day (unit of gas is 3.6MJ) (b) | 15 cents per unit |
| Over 12 units per day (unit of gas is 3.6MJ) (c) | 14 cents per unit |
| Average existing connections demand per customer per year (GJ) (d) | 13.78 |
| Units per day (average existing connections demand per customer, (d)) multiplied by 1000 divided by 365 divided by 3.6MJ (e) | 10.49 |
| Weighted average bill discounts (f) | 14.4% |
| **Weighted average bill** (((a) multiplied by 365 divided by 100) plus ((b) multiplied by (e) multiplied by 365 divided by 100) multiplied by (1-(f))) | **$574** |

*Source: ERA and Energy Policy WA*

189. The ERA has used the real change in the weighted average B3 customer gas retail bill shown in Table 17 and applied this to the Core Energy price elasticity factors.

190. The ERA has estimated demand allowing for average retail discounts as the ATCO demand model, as provided to the ERA, does not include retail tariff discounts as part of the calculation of the average gas bill paid by consumers. The ATCO model and Woollahra Partners model calculate the average bill for B3 customers using the maximum retail tariff paid by customers.

**Table 17: ERA final decision B3 customers average bill ($ real 2018)[86]**

| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ATCO revised proposal | [redacted] | | | | | | | | | | | |
| ATCO total change in retail gas bill (%) | 5.66 | 3.82 | 0.43 | -1.12 | -1.14 | 0.30 | -6.85 | 10.18 | -1.43 | -5.70 | 0.51 | 1.76 |
| ERA final decision | [redacted] | | | | | | | | | | | |
| ERA total change in retail gas bill (%) | 5.66 | -6.41 | -1.24 | -0.62 | -3.42 | -7.25 | -0.69 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

*Source: ERA model, Woollahra Partners model based on Core Energy model*

### *Revised B3 consumption forecasts*

191. Table 18 shows the ERA final decision B3 consumption forecasts. In the draft decision the ERA forecast lower B3 customer numbers than ATCO's initial proposal.

**Table 18: ERA final decision B3 consumption forecasts (TJ)**

| | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| ATCO revised proposal | 9,774 | 9,634 | 9,534 | 9,406 | 9,321 |
| **ERA final decision** | **9,973** | **9,926** | **9,879** | **9,820** | **9,799** |

*Source: ERA model, Woollahra Partners model based on Core Energy model*

### *B3 customer number forecasts*

192. ATCO incorporated Housing Industry Association building starts to forecast B3 customer connections in its demand model. The Woollahra Partners report used BIS Oxford building completions forecasts instead. ATCO disagreed with Woollahra Partners' view that building completions (rather than building starts) provided a more appropriate forecast. ATCO considered that:

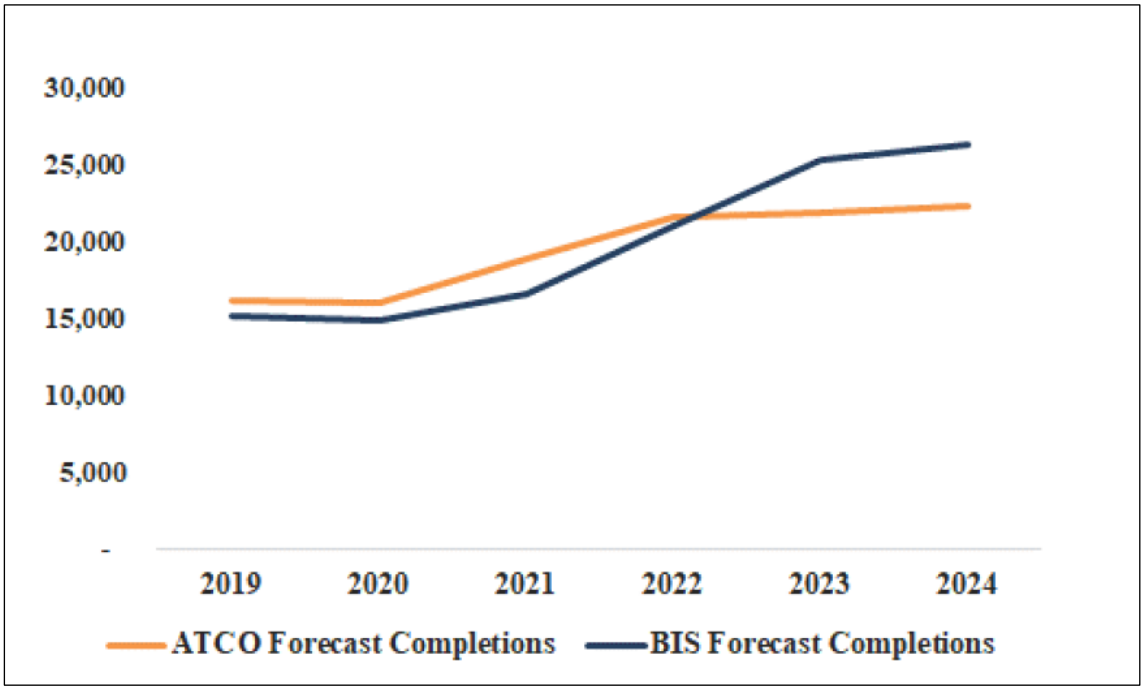
> Core Energy have correctly provided for non-completions in its forecast and we observe that there is no conclusive evidence that the BIS forecasts have outperformed the HIA

[86] The table starts in 2013 to reflect the divergence between ATCO's the ERA's calculations of the average bill. Discounts were not incorporated in ATCO's calculation of the average bill but is included in the calculation of the average bill and average bill change as shown in the table.

> forecasts. We are concerned that the BIS forecast incorporates 27% growth in 2022 without an explanation of what is driving this.[87]

193. The ERA considers that building completions provided by BIS Oxford represent a better estimate with which to forecast B3 connections over AA5, as required by rule 74 of the NGR. Building completions provide a better measure to base gas connections on, as not all housing starts lead to completed residences. Using the BIS Oxford completion data, there are 2,260 more new B3 gas connections during AA5 than forecast by ATCO. However, the timing of completions vary throughout AA5 as shown in Figure 8. Both forecasts predict an increase in building activity during AA5. However, BIS Oxford estimates that the increase in building completions will occur later in the AA5 period and that the increase in building activity will be at a faster growth rate when it occurs.

**Figure 8: ATCO Forecast Completions and BIS Forecast Building Completions profile**




*Source Woollahra Partners Report p. 15.*

194. In its response to the Woollahra Partners report, ATCO submitted that:[88]

> Core Energy have correctly provided for non-completions in its forecasts and we (ATCO) observe that there is no conclusive evidence that BIS forecasts have out performed the HIA forecasts. We (ATCO) are concerned the BIS incorporates 27% growth in 2022 without an explanation of what is driving this.

195. The ERA considers that by using BIS Oxford building completions forecasts there is no requirement to assume a number of non-completions in the forecasting method. This eliminates the possibility of introducing error through the assumed rate of building non-completions. For the period 2020 to 2024 BIS Oxford forecast 104,185 dwelling completions. The difference between housing completion forecasts based

87 ATCO, *Submission on Woollahra Partners Review*, 16 September 2019, p. 2.

88 ATCO, *Submission on Woollahra Partners Review*, 16 September 2019, p. 2.

on HIA housing starts and BIS Oxford housing completions is 3 per cent for the AA5 period. The increase in the BIS Oxford forecast from 2023 to 2024 is 4 per cent.

196. The ERA notes ATCO's concern regarding BIS Oxford's forecast increase in completions for 2022. The BIS Oxford data starts at a lower base in 2021 than the ATCO forecast of completions and ends up at around the same level as ATCO's forecast of completions in 2022. The BIS Oxford forecasts start to return to trend in 2022. This means that by 2024 building completions return to levels consistent with 2016 actuals and close to the average for 2010 to 2016.

197. According to Woollahra Partners:

> ATCO use a 1-year lag of housing starts (commencements) to proxy for housing completions. However, evidence suggests not all commencements reach completion. To this end, independent housing completions forecasts should be used where available and these are obtained from BIS Oxford Economics.[89]

198. Consistent with its AA4 final decision, the ERA considers that the BIS Oxford forecast should be used. In a report prepared for the ERA during the access arrangement review process for AA4, Deloitte Access Economics also recommended using independent forecasts of dwelling completions prepared by BIS Oxford instead of HIA building starts to forecast new B3 residential connections. BIS Oxford provides independent housing forecasting to clients. The BIS forecasts are quarterly forecasts of housing completions compared to ATCO's use of an arbitrary annual lag of housing starts.

199. The ERA considers that the BIS Oxford building completions data for Western Australia yields a better forecast consistent with rule 74 of the NGR. The ERA is required by rule 74 of the NGR to use the best forecast in the circumstances of demand to determine the access arrangement.

200. The penetration rates ATCO used to forecast gas connections (based on HIA housing starts) can be adopted when using BIS Oxford forecasts of completions.[90] The penetration rate should be the same, as its based on a forecast of completions. For ATCO, this is the HIA housing starts lagged by a year to estimate dwelling completions. The ERA uses the BIS Oxford forecast of completions.

### *Conclusion*

201. The ERA accepts ATCO's forecast demand for A1, A2, B1 and B2 customers. ATCO's survey of A1 customers indicates that A1 customer intentions have changed since the draft decision and ATCO has revised its A1 forecast. The forecasts for A2, B1, and B2 customers have also been revised since the draft decision to reflect the Core Energy demand model changes. The Core Energy report outlined changes in its assumptions between ATCO's initial proposal and its response to the draft decision. The ERA is satisfied with ATCO's A1, A2, B1, and B2 forecasts.

202. The ERA considers that the ERA's revised forecasts for B3 customers comply with rule 74 of the NGR, that is, they have been arrived at on reasonable basis and represent the best forecasts available in the circumstances. B3 customer usage and customer numbers require adjustment to provide the best forecast of gas demand for

[89] Woollahra Partners, *Review of ATCO's AA5 Gas Demand Forecasts,* 2 September 2019, p. 15.

[90] The penetration rate is used by ATCO to determine the number of connections given a certain level of building completions. ATCO use HIA building starts forecasts as the underlying data source. The ERA however is using BIS Oxford housing completions forecasts.

AA5. Alinta supported these changes.[91] ATCO maintained its reservations about adjusting the demand model to allow for discounts for B3 customers that have occurred since 2014.[92]

203. The ERA has considered ATCO's revised proposal, the Woollahra Partners report and submissions from interested parties to estimate the forecast demand for AA5. Discounts by retailers should be incorporated into the demand model. Discounts were offered to B3 residential customers from 2014 onwards, when retail competition accelerated with the entrance of Kleenheat into the residential retail market. The ERA considers that BIS Oxford building completions forecasts should be used to forecast B3 customer connections instead of a lagged measure of housing starts. The ERA agrees with ATCO that using 2018 actual demand data instead of a 2018 forecast is appropriate.

204. The ERA has adjusted ATCO's forecast B3 usage and connections and as a result overall demand is higher than the forecast provided by ATCO. The ERA has adjusted the ATCO demand model to reflect changes in pre-2006 and post-2006 customer usage, incorporated BIS Oxford housing completions in order to forecast B3 connections and agreed with ATCO to use 2018 actual data in determining forecasts for 2020-24.

205. The ERA's draft decision considered that ATCO's proposed greenfields and brownfields growth capital expenditure was not conforming capital expenditure.

206. At the time of the draft decision, the ERA considered that ATCO's initial proposal for AA5 greenfields and brownfields growth capital expenditure did not meet the incremental revenue test under rule 79(2)(b) of the NGR and should not be rolled into the regulatory asset base for AA5. However, in this final decision the ERA considers that there should be no adjustment to greenfields and brownfields growth capital expenditure in AA5 and considers there will be growth in B3 customer numbers in AA5.

207. A summary of the ERA's final decision demand forecast is presented in Table 19.

[91] Alinta Energy, Submission to the consultation on demand forecasts for the proposed revised access arrangement for the Mid-West and South-West Gas Distribution Systems, 16 September 2019, pp. 2-3.

[92] ATCO, Submission to the consultation on Woollahra Partners Review of ATCO's AA5 Gas Demand Forecasts, 16 September 2019, p. 8.

**Table 19: ERA's final decision customer numbers and usage forecasts 2020 to 2024**

| | 2020 | 2021 | 2022 | 2023 | 2024 | CAGR (%) |
|---|---|---|---|---|---|---|
| **A1** | | | | | | |
| Customers | 75 | 75 | 75 | 74 | 74 | -0.34% |
| Usage (TJ) | 11,537.74 | 11,850.74 | 11,509.45 | 11,200.54 | 11,140.73 | -0.87% |
| **A2** | | | | | | |
| Customers | 106 | 106 | 107 | 107 | 108 | 0.47% |
| Usage (TJ) | 1,818.99 | 1,801.25 | 1,783.78 | 1,766.60 | 1,749.70 | -0.97% |
| **B1** | | | | | | |
| Customers | 1,780 | 1,834 | 1,888 | 1,943 | 1,999 | 2.94% |
| Usage (TJ) | 2,111.59 | 2,150.39 | 2,190.62 | 2,224.66 | 2,247.16 | 1.57% |
| **B2** | | | | | | |
| Customers | 12,239 | 12,519 | 12,796 | 13,096 | 13,402 | 2.30% |
| Usage (TJ) | 1,373.37 | 1,386.83 | 1,404.34 | 1,418.24 | 1,425.21 | 0.93% |
| **B3** | | | | | | |
| Customers | 740,372 | 747,883 | 757,221 | 769,293 | 783,000 | 1.41% |
| Usage (TJ) | 9,973.32 | 9,926.00 | 9,878.78 | 9,820.17 | 9,798.95 | -0.44% |
| **Total** | | | | | | |
| **Customers** | **754,571** | **762,417** | **772,087** | **784,513** | **798,583** | **1.43%** |
| **Usage (TJ)** | **26,815.01** | **27,115.21** | **26,766.98** | **26,430.21** | **26,361.76** | **-0.43%** |

*Source: ERA*

Note: Customer numbers are the midpoint between years as per the ERA tariff model.

**Required Amendment 1**

The haulage demand forecasts for AA5 must reflect the values in Table 19 of this final decision.

## *Ancillary reference services*

208. Ancillary reference services across all categories are mainly for B3 connections. As a result, the forecast level of ancillary services is correlated to the forecast growth in B3 customers of 1.51 per cent per year as shown in Table 20. Forecast growth in customer connections differs to table 19 because it is determined on end-of-year B3 customer numbers not middle of the year customer numbers. The ERA ancillary services forecast is higher than ATCO's proposed forecast due to the adjustment by

the ERA to B3 customers and usage. This provides the best forecast possible in the circumstances in accordance with rule 74 of the NGR.

**Table 20: ERA's final decision ancillary reference services forecasts 2020 to 2024**

| Ancillary service | 2020 | 2021 | 2022 | 2023 | 2024 | CAGR (%) |
|---|---|---|---|---|---|---|
| Applying a meter lock | 9,329 | 9,429 | 9,563 | 9,732 | 9,907 | 1.51% |
| Removing a meter lock | 8,077 | 8,164 | 8,280 | 8,426 | 8,578 | 1.51% |
| Deregistering a delivery point | 2,212 | 2,235 | 2,267 | 2,307 | 2,349 | 1.51% |
| Disconnecting a delivery point | 3,646 | 3,685 | 3,737 | 3,803 | 3,872 | 1.51% |
| Reconnecting a delivery point | 2,927 | 2,959 | 3,001 | 3,054 | 3,109 | 1.51% |
| Special meter reading | 124,977 | 126,318 | 128,115 | 130,374 | 132,721 | 1.51% |

*Source: ERA.*
Note: Forecasts reflect number of connections at the end of the year.

**Required Amendment 2**

The ancillary reference services demand forecast for AA5 must reflect the values in Table 20 of this final decision.

# Key Performance Indicators

209. Rule 72(1)(f) of the NGR requires access arrangement information to include information on the key performance indicators to be used by the service provider to support the expenditure to be incurred over the access arrangement period.

> **72 Specific requirements for access arrangement information relevant to price and revenue regulation**
>
> (1) The access arrangement information for a full access arrangement proposal (other than an access arrangement variation proposal) must include the following:
>
> …
>
> (f) the key performance indicators to be used by the service provider to support expenditure to be incurred over the access arrangement period;

## *ATCO's initial proposal*

210. ATCO's proposed key performance indicators are set out in chapter 10 of the access arrangement information and are summarised below (Table 21 and Table 22). Apart from a new asset health index indicator, the indicators remain unchanged from the fourth access arrangement period (AA4) with updated targets for the fifth access arrangement period (AA5).

**Table 21 ATCO's key performance indicators and targets for AA5**

| KPI | Description | AA5 target |
|---|---|---|
| **Customer service** | | |
| Domestic customer connections within five business days * | The percentage of new customer connections to established domestic dwellings on the distribution network provided within five business days (the applicable regulated time limit). | >98.7% |
| Attendance to broken mains and services within one hour * | The percentage of attendance to broken mains and services within one hour of the service request being received. | >99.9% |
| Attendance to loss of supply within three hours * | The percentage of attendance to loss of gas supply within three hours of the service request being received. This indicator is included in [ATCO's] Safety Case[93] and is covered by the Guarantee Service Level scheme. | >99.9% |
| **Network integrity** | | |
| Asset health index | An index based on unplanned SAIDI, unplanned SAIFI, mains leaks, service leaks, and meter leaks. | 100 |

[93] ATCO, *Gas Distribution System Safety Case*, December 2017.

| KPI | Description | AA5 target |
|---|---|---|
| Total public reported gas leaks per km of main | Total number of confirmed gas leaks reported by the public (excluding third-party damage) per kilometre of main per year. | <0.65 |
| System average interruption frequency index (SAIFI) | The number of supply interruptions experienced by the average customer as a result of sustained unplanned interruptions, calculated as: *"(sum of the number of customers interrupted) / (number of customers served)"*. | <0.0041 |
| Unaccounted for gas (UAFG) rate * | UAFG is the difference between the measurement of the quantity of gas delivered into the gas distribution system in each period and the measurement of the quantity of gas delivered from the gas distribution system during that period. | Yearly target (Table 22) |
| **Expenditure** | | |
| Operating expenditure per km of main | The total operating expenditure per year divided by the total km of main. | Yearly target (Table 22) |
| Operating expenditure per customer connection | The total operating expenditure per year divided by the total number of customer connections. | Yearly target (Table 22) |

*Source: ATCO, 2020-24 Plan (Access Arrangement Information), p. 69, Table 10.3.*

** Reported to the ERA annually as required under ATCO's gas distribution licence.*

**Table 22: ATCO's unaccounted for gas and operating expenditure key performance indicator targets for AA5**

| KPI | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| UAFG rate (%) | 2.55 | 2.52 | 2.50 | 2.48 | 2.46 |
| Operating expenditure per km of main ($ 2019) | 4,687 | 4,736 | 4,855 | 4,894 | 4,889 |
| Operating expenditure per customer connection ($ 2019) | 89 | 89 | 92 | 92 | 92 |

*Source: ATCO, 2020-24 Plan (Access Arrangement Information), Table 10.4.*

211. The indicators are categorised into three groups – customer service, network integrity and expenditure. ATCO has set the AA5 indicator targets by:[94]

> **Using current performance:**
>
> The customer service and network integrity KPIs use the simple average of our service performance over the past five years. We believe the past five years is representative of the performance that customers are seeking into AA5. The five-year average moderates the effect of events outside of our control such as weather.

[94] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 63.

**Using expected performance in 2024:**

For the new asset health index KPI, we have set the AA5 targets to reflect the level of performance expected in 2024. This KPI allows customers to see the changes in asset health over the period.

**Aligning with AA5 forecast expenditure:**

The expenditure KPIs have been calculated consistent with our expenditure forecasts using the forecasts of opex, customer numbers, and km of mains over AA5. The [unaccounted for gas] KPI targets have been set based on volume demand forecasts and historical trends.

## *Draft decision*

212. Synergy's submission to the ERA addressed ATCO's initial proposal for key performance indicators.[95] Synergy submitted that:

- "ATCO is under a price-cap form of regulation, [and because of this] the key performance indicators are not linked to any financial reward or penalty scheme". Synergy still considered, however, that such performance indicators provided a measurable benchmark for ATCO, retailers, customers and the ERA to assess ATCO's performance.
- The key performance indicators set for AA4 appear to have been set at levels that were easily met. Synergy recommended that ATCO's proposed indicators for AA5 be assessed to ensure the measures provided a realistic target and possibly a "stretch target".

213. Rule 72(1)(f) of the NGR requires ATCO to include in access arrangement information key performance indicators to be used to support the expenditure to be incurred over the access arrangement period. The rule does not prescribe the number or type of key performance indicators to be used, or any specific assessment criteria that the indictors must meet.

214. ATCO's proposal to include the nine key performance indicators, detailed in Table 21 (above), met the requirements of rule 72(1)(f). That is, ATCO included in its access arrangement information the key performance indicators to be used to support the expenditure to be incurred over AA5.

215. As the NGR do not detail any specific assessment criteria for key performance indicators the ERA considered the following matters:

- Whether the proposed indicators supported the categories of expenditure that would be incurred over the access arrangement period.
- Whether the proposed indicators provided a means to measure and benchmark the effect of the expenditure and whether the targets set were suitable.

216. ATCO's proposed operating and capital expenditures to be incurred over the access arrangement period were considered in detail separately (elsewhere in the draft decision). Table 23 summarises the categories of expenditure. ATCO's proposed key performance indicators either directly or indirectly supported these categories of expenditure. For example, the UAFG rate indicator directly supported the unaccounted for gas expenditure category, whereas the other network integrity indicators (for instance, asset health index, reported leaks per km of main and System

[95] Synergy submission, 14 November 2018, p. 8.

Average Interruption Frequency Index [SAIFI]) all indirectly supported the network operating and network sustaining expenditure categories.

**Table 23: ATCO's operating and capital expenditure categories for AA5**

| Operating expenditure categories | Capital expenditure categories |
|---|---|
| Network operating expenditure<br>*Expenditure for network maintenance and network control and operations support.* | Network sustaining<br>*Expenditure to maintain and improve the safety and integrity of services, comply with regulatory obligations and meet current levels of demand.* |
| Corporate operating expenditure<br>*Expenditure associated with enterprise-wide needed support functions (for example, human resources and finance support functions).* | Network growth<br>*Expenditure to comply with regulatory obligations and meet forecast growth in demand for services.* |
| Information technology operating expenditure<br>*Expenditure for managing the maintenance and replacement of IT assets.* | Information technology<br>*Expenditure for IT systems to provide services to customers and for strategic initiatives.* |
| Unaccounted for gas<br>*Expenditure to cover unaccounted for gas.* | Structures and equipment<br>*Expenditure to maintain and replace fleet vehicles, plant and property.* |
| Ancillary<br>*Expenditure associated with the provision of ancillary services.* | |

*Source: ATCO, 2020-24 Plan (Access Arrangement Information), Chapter 11 and Chapter 12.*

217. The measurability of, and targets for, ATCO's proposed key performance indicators were considered in turn. As part of these considerations, the ERA considered advice from its technical advisor EMCa.

## *Customer service indicators*

218. ATCO's customer service indicators comprised three separate key performance indicators and remain unchanged from the indicators included in the current AA4 access arrangement. The AA5 target for each indicator was set using a simple average of ATCO's service performance over the past five years, resulting in two of the three targets being higher (i.e. requiring a higher level of performance) than the current targets (Table 24).

219. ATCO submitted that reporting against these indicators would help it maintain connection times within customers' expected timeframes, and a high standard of fault response and safety performance.[96]

[96] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, pp. 63 and 64.

**Table 24: ATCO's customer service key performance indicators and targets**

| KPI | AA4 target | AA5 target | Basis for AA5 target |
|---|---|---|---|
| Domestic customer connections within five business days (%) | >99.5 | >98.7 | Average of ATCO's actual service performance over the past five years |
| Attendance to broken mains and services within one hour (%) | >99.7 | >99.9 | |
| Attendance to loss of gas supply within three hours (%) | >99.7 | >99.9 | |

*Source: ERA, AA4 Final Decision, Table 18; ATCO, Access Arrangement Information, Chapter 10.*

220. ATCO's proposed customer service indicators provide a means to measure and benchmark the effect of associated expenditures as part of the access arrangement. The ERA considered ATCO's proposed expenditure for AA5 elsewhere in the draft decision. Any changes to capital and/or operating expenditures that were allocated to address customer service operations should result in consequential effects on ATCO's performance against this indicator over time.

221. ATCO set the customer service targets for AA5 by using its average service performance over the past five years, which resulted in two of the targets (attendance to broken mains and services and attendance to loss of gas supply) being higher than the current AA4 targets by 0.2 percentage points. The remaining target (domestic customer connections) was 0.8 percentage points lower than the current target. This method for setting AA5 targets was reasonable on the basis that it reflected customers' expectations that ATCO's existing performance levels were acceptable and did not require improvements.[97]

### *Network integrity indicators*

222. ATCO's network integrity indicators comprised four separate key performance indicators and remained unchanged from the indicators included in the current (AA4) access arrangement, except for a new asset health index (Table 25).

**Table 25: ATCO's network integrity indicators and targets**

| KPI | AA4 target | AA5 target | Basis for AA5 Target |
|---|---|---|---|
| Asset health index (new) | n/a | 100 | Level of performance expected in AA5 (year 2024) |
| Total public reported gas leaks per kilometre of main | <0.7 | <0.65 | Average of ATCO's actual service performance over the past five years |
| SAIFI | <0.0044 | <0.0041 | Average of ATCO's actual service performance over the past five years |
| UAFG rate | Table 26 | Table 26 | Volume demand forecasts and historical trends |

*Source: ERA, AA4 Final Decision, Table 18; ATCO, Access Arrangement Information, Chapter 10.*

[97] EMCa, *Review of Technical Aspects of the Proposed Access Arrangement (Confidential)*, January 2019, section 3.6.

**Table 26: ATCO's unaccounted for gas rate AA4 and AA5 targets**

| UAFG rate (%) | Year | Year | Year | Year | Year |
|---|---|---|---|---|---|
| **AA4 targets** | **2015** | **2016** | **2017** | **2018** | **2019** |
| | 2.63 | 2.62 | 2.62 | 2.60 | 2.58 |
| **AA5 targets** | **2020** | **2021** | **2022** | **2023** | **2024** |
| | 2.55 | 2.52 | 2.50 | 2.48 | 2.46 |

*Source: ERA, AA4 Final Decision, Table 34; ATCO, Access Arrangement Information, Chapter 10.*

### *Asset health index*

223. The ERA's final decision for AA4 required ATCO to include an asset health key performance indicator for AA5 "to provide a link between network management and the service level that is experienced by customers".[98]

> … an asset health KPI was important, given the increase in forecast sustaining capital expenditure over the fourth access arrangement period. The asset health KPI would need to:
>
> - Address how changes to asset condition data and models occurring during the access arrangement period will be accounted for; and
> - Provide flexibility to make efficient adjustments within the access arrangement period, for example an efficient capital expenditure/operating expenditure trade-off allowing for deferral of an asset replacement.

224. ATCO submitted that the purpose of its proposed asset health index for AA5 was "to demonstrate the value of proposed asset expenditure to [its] customers regarding improved asset health".[99] To develop the index, ATCO considered:

- what information was measured and reported on in AA4
- how the index would complement the existing key performance indicators
- whether the index was easily understandable.

225. ATCO submitted that Australian Gas Networks (Victoria and Albury) and AusNet had adopted a similar index for their respective gas distribution networks. ATCO's asset health index parameters, weightings and targets are shown in Table 27. ATCO submitted:[100]

> The index is based on the weighted average of the index scores for unplanned System Average Interruption Duration Index (SAIDI), unplanned System Average Interruption Frequency Index (SAIFI), mains leaks, service leaks, and meter leaks. The index score calculation is:
>
> $Index_n = 200 - (Actual_n \,/\, Target_{2024}) \times 100$
>
> We have set the target performance for each parameter to reflect the expected level of performance in 2024 to enable the Asset Health Index to demonstrate the value of the

[98] ERA, *Final Decision on Proposed Revisions to the Access Arrangement for the Mid-West and South-West Gas Distribution Systems*, 30 June 2015, p. 55, paragraph 240.

[99] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 65.

[100] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 65.

proposed asset expenditure over AA5.

**Table 27: ATCO's asset health index parameters**

| Parameter | Description | Weighting (%) | Target (2024) |
|---|---|---|---|
| Unplanned SAIDI | Total duration of sustained interruptions in a year | 25 | 1.7877 |
| Unplanned SAIFI | Total number of sustained interruptions in a year | 25 | 0.0041 |
| Main leaks | Leaks pa / km | 30 | 0.0282 |
| Service leaks | Leaks pa / service | 15 | 0.0102 |
| Meter leaks | Leaks pa / meter | 5 | 0.0003 |

*Source: ATCO, Access Arrangement Information, Table 10.2.*

226. EMCa's review of ATCO's proposed asset health indicator noted that:[101]

- The index was derived from other key performance indicators.
- The selected parameters were all lagging indicators of performance (that is, the parameters measured an event occurring on the network, rather than being indicative of the condition of the network and inherent risk).

227. EMCa concluded that:[102]

- The rationale for ATCO deriving an asset health indicator from other existing KPIs is not clear.
- An asset health index should be specified in such a way that it can be read as a leading indicator of performance.
- ATCO provides no annual estimate of the Asset Health KPI for the AA5 period, nor for the AA4 period. If it were to produce the historical Asset Health KPI for at least 2014 onwards, it would help with understanding the historical and forecast 'health' of the GDS as a result of its investment in the GDS.
- ATCO has not provided justification for the weightings applied in the development of the Asset Health KPI.
- There is no evidence that ATCO has taken this KPI into account in developing its AA5 forecast or in (retrospectively) monitoring its historical performance.

228. EMCa's conclusions were reasonable. The information provided by ATCO did not adequately explain its choice of asset health indicator. While ATCO provided an overview of the matters it considered to develop the indicator (see paragraph 224), it did not provide any further explanation.

[101] EMCa, *Review of Technical Aspects of the Proposed Access Arrangement (Confidential)*, January 2019, section 3.6, paragraph 90.

[102] EMCa, *Review of Technical Aspects of the Proposed Access Arrangement (Confidential)*, January 2019, section 3.6, paragraph 91.

229. ATCO submitted that two Australian service providers – Australian Gas Networks (AGN) and AusNet Services[103] – had adopted a similar asset health indicator. The asset health indicators used by AGN and AusNet Services are key performance indicators that cover either or both:[104]

- Mechanical mains and service damage, with:
  - Mains damage measuring the frequency of mechanical damage per kilometre of mains.
  - Service damage measuring the frequency of mechanical damage to service per customer connection.
- Mains replacement, which measures the volume of mains replacement works, in kilometres per year, as part of an annual mains replacement program.

230. AGN and AusNet Services do not combine or weight the above indicators to create an asset health index. The indication of asset health is provided by the yearly reporting of performance against each of the key performance indicators used.

231. Consistent with its AA4 final decision, the ERA still considered that any one, a combination, or all the indicators used by AGN and AusNet Services were suitable indicators to inform and benchmark asset health. Notwithstanding this, ATCO chose to develop its own asset health indicator, which was consistent with the ERA's AA4 final decision required amendment. As indicated in paragraphs 227 and 228, however, additional information was required from ATCO to further explain its choice of indicator and how the indicator supported the expenditure to be incurred over the access arrangement period.

**Draft Decision Required Amendment 3**

ATCO must provide additional information to further explain its choice of asset health indicator for inclusion in the access arrangement information.

### *Total public reported gas leaks per kilometre of main*

232. ATCO described the total public reported gas leaks per kilometre of main indicator as "the total number of confirmed gas leaks reported by the public, excluding third-party damage, per kilometre of main per year". The indicator reflected the performance of the network and ATCO's maintenance activities.[105]

233. ATCO set the reported gas leaks target for AA5 by using its average service performance over the past five years. That resulted in a target of <0.65 for AA5, which was a higher standard than the current AA4 target of <0.7.[106]

234. ATCO's proposed indicator provided a means to measure and benchmark the effect of associated expenditures as part of the access arrangement. The method for setting the AA5 target was considered reasonable on the basis that the target was

[103] Previously known as SP AusNet.

[104] Australian Gas Networks, *Final Plan Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 to 2022*, December 2016, p. 20.

AusNet Services, *Gas Access Arrangement Review 2018-2022: Access Arrangement Information*, 16 December 2016, chapter 3.6.

[105] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 66.

[106] Given the nature of the indicator, a higher target is represented by a lower number.

seeking a higher level of service performance (that is, a lower number of reported gas leaks per kilometre of main).[107]

235. The ERA considered ATCO's proposed expenditure for AA5 elsewhere in the draft decision. Any changes to capital and/or operating expenditures that were allocated to address the number of publicly reported gas leaks should result in consequential effects on ATCO's performance against this indicator over time.

***System average interruption frequency index***

236. ATCO described the SAIFI indicator as "the number of supply interruptions experienced by the average customer as a result of sustained unplanned interruptions".[108] It is calculated as:

(sum of the number of customers interrupted) / (number of customers served)

237. ATCO submitted "SAIFI is an industry accepted measure for reliability, indicating the average number of interruptions that a customer would experience in a year" and that during AA5 it would "continue to invest in the network, including the installation of high pressure pipelines, interconnections, and associated pressure reduction infrastructure to maintain reliability for customers".[109]

238. ATCO set the SAIFI target for AA5 by using its average service performance over the past five years. That resulted in a target of <0.0041 for AA5, which was a higher standard than the current AA4 target of <0.0044.[110]

239. ATCO's proposed indicator provided a means to measure and benchmark the effect of associated expenditures as part of the access arrangement. The method for setting the AA5 target was considered reasonable on the basis that the target was seeking a higher level of service performance (that is, a lower number of supply interruptions from unplanned interruptions).[111]

240. The ERA considered ATCO's proposed expenditure for AA5 elsewhere in the draft decision. Any changes to capital and/or operating expenditures that were allocated to address unplanned supply interruptions should result in consequential effects on ATCO's performance against this indicator over time.

***Unaccounted for gas***

241. ATCO described the UAFG indicator as "the difference between the measurement of the quantity of gas delivered into the gas distribution system in each period and the measurement of the quantity of gas delivered from the gas distribution system during that period". ATCO submitted that:[112]

[107] EMCa, *Review of Technical Aspects of the Proposed Access Arrangement (Confidential)*, January 2019, section 3.6.

[108] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 66.

[109] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 66.

[110] Given the nature of the indicator, a higher target is represented by a lower number.

[111] EMCa, *Review of Technical Aspects of the Proposed Access Arrangement (Confidential)*, January 2019, section 3.6.

[112] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, pp. 67 and 69.

> UAFG is attributable to both leakage in the network and measurement error. UAFG makes up part of the overall cost of providing services. Reporting against this KPI will help [ATCO] maintain [its] commitment to reducing UAFG.

242. ATCO's proposed UAFG targets for AA5 were set for each year of the access arrangement period and were based on volume demand forecasts and historical trends. Information to support the UAFG targets was included in ATCO's UAFG Strategy and Pricing Forecast.[113]

243. The ERA considered ATCO's forecast of UAFG and associated operating expenditure to cover the UAFG elsewhere in the draft decision. Consistent with those considerations, ATCO's proposed AA5 UAFG indicator targets (shown in Table 26 above) were considered reasonable on the basis that the targets were declining targets. These declining targets supported ATCO's forecast performance and expenditure for reducing the rate of unaccounted for gas over AA5.[114]

### *Expenditure indicators*

244. ATCO's expenditure indicators comprised two separate key performance indicators and remained unchanged from the indicators included in the current AA4 access arrangement. The AA5 yearly targets for each indicator were set based on ATCO's expected performance and forecast expenditure (opex) in AA5 (Table 28).

**Table 28: ATCO's expenditure key performance indicator targets for AA5 ($ real as at 31 December 2019)**

| KPI | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Opex per km of main | 4,687 | 4,736 | 4,855 | 4,894 | 4,889 |
| Opex per customer connection | 89 | 89 | 92 | 92 | 92 |

*Source: ATCO, 2020-24 Plan (Access Arrangement Information), Table 10.4.*

245. ATCO submitted that its proposed expenditure indicators "ensure that [its] measures of efficiency include the costs associated with additional kilometres of network and additional customers".[115]

246. ATCO's operating expenditure indicators and targets were based on ATCO's forecast of operating expenditure for AA5 and hence provided a direct means to measure and benchmark the effect of this expenditure. The indicator targets were set based on ATCO's expected performance and forecasts for AA5.[116] The ERA considered ATCO's forecast operating expenditure and demand forecasts elsewhere in the draft decision. Consistent with the required amendments in those sections, ATCO's AA5 targets for its expenditure indicators needed be recalculated. The ERA's recalculated targets are shown in Table 29.

[113] ATCO, *2020-24 Plan Attachment 11.2: UAFG Forecast Strategy (Public)*, 31 August 2018.

[114] EMCa, *Review of Technical Aspects of the Proposed Access Arrangement (Confidential)*, January 2019, section 3.6.

[115] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 68.

[116] EMCa, *Review of Technical Aspects of the Proposed Access Arrangement (Confidential)*, January 2019, section 3.6.

**Draft Decision Required Amendment 4**

ATCO must amend its expenditure key performance indicator targets in accordance with Table 20 of [the] draft decision. [Table 29 in this final decision]

**Table 29: ERA's draft decision expenditure key performance indicator targets for AA5 ($ real as at 31 December 2019)**

| KPI | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| **ATCO proposal** | | | | | |
| Opex per km of main | 4,687 | 4,736 | 4,855 | 4,894 | 4,889 |
| Opex per customer connection | 89 | 89 | 92 | 92 | 92 |
| **ERA draft decision** | | | | | |
| Opex per km of main | 4,440 | 4,437 | 4,460 | 4,499 | 4,480 |
| Opex per customer connection | 84 | 84 | 85 | 86 | 86 |

## *ATCO's response to the draft decision*

247. ATCO addressed the ERA's draft decision required amendment to provide further information for its choice of asset health indicator. When developing the indicator, ATCO considered:[117]

- What information was measured and reported on in AA4 – ATCO could only base its health indicator on information that it had collected during AA4, which could then be used to inform the expected performance over AA5.
- How the indicator would complement the existing key performance indicators – ATCO recognised that its health indicator should complement the existing performance indicators and provide additional information on the asset health of the network.
- Whether the indicator was easily understandable – ATCO sought to develop a health indicator that could be understood by existing customers and prospective users, and that had been applied in other Australian jurisdictions.

248. ATCO submitted the proposed asset health indicator: [118]

- Was based on the Asset Performance Index adopted by Australian Gas Networks (Victoria and Albury) and AusNet for their gas distribution networks as part of their capital expenditure sharing scheme. ATCO considered that it was appropriate to base its health indicator on this index because they were both seeking to measure the underlying health of the network by measuring the reliability of supply and gas leaks.
- Incorporated additional information (service leaks and meter leaks) that was not reported in the existing key performance indicators.

[117] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, pp. 79-80.

[118] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, p. 80.

- Allowed existing customers and prospective users to better understand if ATCO's asset health was better (>100) or worse (<100) than expected, given that it was a single index (indicator).

249. ATCO submitted the following information to further substantiate its choice of asset health indicator.[119]

> **Lagging vs leading performance**
>
> ATCO considers that leading indicators can assist in determining the optimum asset management practices and that lagging indicators provide a useful means of verifying the achievement of the asset management objectives.
>
> ATCO recognises that its proposed AHI [Asset Health Index] is a lagging indicator. As a lagging indicator it will provide useful information to our customers and prospective users on movements in the underlying health of our network during AA5. The advantage of the AHI is that it reflects the underlying health of the network across many classes of assets, which is appropriate for a key performance indicator set in the access arrangement information. The lagging AHI indicator is used to verify attainment of the program's targets.
>
> …
>
> **Annual estimates of the asset health index key performance indicator**
>
> ATCO has calculated the AHI [key performance indicator] over the AA4 period and the target for AA5 to help with understanding the historical and forecast 'health' of the GDS as a result of its investment in the GDS. The performance of the index shows that historically it has been between plus or minus 20% around the index proposed for AA5 [that is, between 80 and 120]. Trends in the AHI over time will provide useful information on the underlying asset health of the network.
>
> …
>
> **Justification for the weightings applied**
>
> The AHI is based on the weighted average of the index scores for SAIDI, unplanned SAIFI, mains leaks, service leaks, and meter leaks.
>
> ATCO developed the weightings through a collaborative approach within the business. We have determined weightings suitable to measuring the attainment of the asset management objectives determined for AA5. ATCO notes that the weightings it has adopted are similar to those adopted by Australian Gas Networks (Victoria and Albury) and AusNet for their Asset Performance Index.
>
> [ATCO's proposed weightings are: unplanned SAIDI 25%, unplanned SAIFI 25%, main leaks 30%, service leaks 15% and meter leaks 5%. These weightings remain unchanged from the weightings included in ATCO's original proposal.]
>
> …
>
> **Additional information on the application of the asset heath index**
>
> The calculation of the AHI is based on the following three steps:
>
> Step 1: Calculate the five underlying AHI parameters …
>
> Step 2: Convert each of the five underlying AHI parameters to a 100-base index …
>
> Step 3: Calculate the AHI as the weighted average of the 100-base index for the five underlying metrics …

250. ATCO set the target performance for each of the asset health index parameters based on a simple five-year average of its service performance for each parameter.[120]

[119] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, pp. 80-83.

[120] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, p. 83.

The performance targets remain unchanged from the targets included in ATCO's initial proposal (see Table 27 above).

251. ATCO did not amend its expenditure key performance indicator targets in accordance with the ERA's draft decision required amendment 4. Instead, ATCO amended its expenditure targets (as shown in Table 30) consistent with its revised proposal to amend its operating expenditure (opex) forecast for AA5. ATCO also amended its AA5 targets for UAFG (Table 31).

**Table 30: ATCO's amended expenditure key performance indicator targets for AA5 ($ real as at 31 December 2019)**

| KPI | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| **ERA draft decision** | | | | | |
| Opex per km of main | 4,440 | 4,437 | 4,460 | 4,499 | 4,480 |
| Opex per customer connection | 84 | 84 | 85 | 86 | 86 |
| **ATCO revised proposal** | | | | | |
| Opex per km of main | 4,580 | 4,667 | 4,779 | 4,830 | 4,813 |
| Opex per customer connection | 86 | 88 | 90 | 91 | 90 |

*Source: ATCO, 2020-24 Revised Plan (Access Arrangement Information), Table 8.5.*

**Table 31: ATCO's amended unaccounted for gas indicator targets for AA5**

| UAFG rate (%) | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| ATCO original proposal | 2.55 | 2.52 | 2.50 | 2.48 | 2.46 |
| **ATCO revised proposal** | **2.45** | **2.43** | **2.40** | **2.39** | **2.37** |

*Source: ATCO, 2020-24 Revised Plan (Access Arrangement Information), Table 8.7.*

## Submissions to the ERA

252. Synergy's submission to the ERA addressed ATCO's initial proposal for key performance indicators and targets for AA5.[121] This submission was considered as part of the ERA's draft decision.

253. There were no other submissions in response to the draft decision or ATCO's revised proposal that addressed the key performance indicators.

## Final decision

254. ATCO has further substantiated its choice of asset health indicator as required by the ERA's draft decision required amendment 3.

255. ATCO's revised operating expenditure indicators and targets (as shown in Table 30) are based on ATCO's revised forecast of operating expenditure for AA5.

[121] Synergy submission, 14 November 2018, p. 8.

The indicators and targets provide a direct means to measure and benchmark the effect of this expenditure.

256. The ERA has considered ATCO's revised forecast operating expenditure and demand forecasts elsewhere in this final decision.[122] Consistent with the required amendments in those sections, ATCO's AA5 targets for its expenditure indicators must be recalculated. The ERA's recalculated targets are shown in Table 32.

**Required Amendment 3**

The key performance indicator targets in the access arrangement information must be amended to be consistent with Table 32 of this final decision.

**Table 32: ERA's final decision expenditure key performance indicator targets for AA5 ($ real as at 31 December 2019)**

| KPI | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| **ATCO revised proposal** | | | | | |
| Opex per km of main | 4,580 | 4,667 | 4,779 | 4,830 | 4,813 |
| Opex per customer connection | 86 | 88 | 90 | 91 | 90 |
| **ERA final decision** | | | | | |
| Opex per km of main | 4,318 | 4,378 | 4,417 | 4,463 | 4,443 |
| Opex per customer connection | 82 | 83 | 83 | 84 | 83 |

257. ATCO's revised targets for UAFG are lower than the targets that were initially proposed. The ERA has considered ATCO's forecast of UAFG and associated operating expenditure to cover the unaccounted for gas elsewhere in this final decision (see paragraphs 537 to 540). Consistent with these considerations, ATCO's revised AA5 targets for UAFG (shown in Table 31 above) are lower than what was initially proposed and are declining targets overall. These declining targets support ATCO's forecast performance and expenditure for reducing the rate of UAFG over AA5. For these reasons, the ERA accepts ATCO's revised AA5 targets for UAFG.

[122] For forecast operating expenditure see paragraph 355. For demand forecasts see paragraph 141.

# Revenue and Tariffs

## *Total revenue*

258. 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.

### *ATCO's initial proposal*

259. ATCO applied the building block approach to propose a total revenue requirement for the fifth access arrangement period (AA5) of $1,025 million. Table 33 details ATCO's proposed building block components. Each of these components is discussed in the sections that follow, except for the inflationary gain in return on assets.

260. The return on the projected capital base is calculated by applying a nominal return on capital to a nominal asset base. As the nominal rate of return includes an allowance for inflation and the capital base is inflated each year to maintain it in nominal (current) dollars, there is a double count of inflation in the return of the projected capital base building block. To remove this double count of inflation, the inflationary gain in return on assets is calculated and shown as a separate line item in Table 33.

**Table 33: ATCO's proposed total revenue requirement for AA5 ($ million 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 |
| 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 |
| Value of imputation credits | (2.3) | (1.9) | (1.5) | (1.4) | (1.2) | (8.2) |
| **Total revenue (Unsmoothed)** | **179.2** | **197.3** | **207.3** | **216.2** | **225.5** | **1,025.5** |

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

## *Draft decision*

261. The ERA's reasoning for each of the building blocks of rule 76 of the NGR is set out in the sections identified in paragraph 258. The resulting total revenue in nominal dollars from the building blocks (operating expenditure, return on the projected capital base, depreciation of the projected capital base and the estimated cost of corporate income tax) is set out in Table 34. As there was no incentive scheme that operated in the fourth access arrangement period (AA4), there were no increments or decrements that affect AA5 revenue.

**Table 34: ERA's draft decision total revenue building blocks AA5 ($ million nominal)**

| Building blocks | 2020 | 2021 | 2022 | 2023 | 2024 | Total |
|---|---|---|---|---|---|---|
| Regulatory operating expenditure | 64.2 | 67.2 | 68.7 | 70.4 | 71.3 | 341.8 |
| *Operating expenditure* | *64.1* | *65.2* | *66.6* | *68.4* | *69.2* | *333.5* |
| *Return on working capital* | *0.1* | *2.0* | *2.0* | *2.1* | *2.1* | *8.3* |
| Return on capital base | 72.4 | 73.8 | 74.9 | 75.9 | 76.7 | 373.7 |
| Regulatory depreciation | 24.1 | 33.1 | 34.2 | 34.9 | 36.2 | 162.6 |
| *Depreciation* | *45.8* | *55.3* | *56.7* | *57.7* | *59.3* | *274.8* |
| *Inflationary gain* | *(21.7)* | *(22.2)* | *(22.5)* | *(22.8)* | *(23.0)* | *(112.2)* |
| Regulatory corporate income tax | 0.0 | 0.0 | 0.0 | 0.2 | 2.5 | 2.6 |
| *Corporate income tax* | *0.0* | *0.0* | *0.0* | *0.3* | *4.9* | *5.3* |
| *Imputation credits* | *0.0* | *0.0* | *0.0* | *(0.2)* | *(2.5)* | *(2.6)* |
| **Total revenue** | **160.7** | **174.1** | **177.8** | **181.4** | **186.7** | **880.7** |

*Source: ERA, GDS Tariff Model, April 2019.*

262. The allocation of total revenue to the haulage and ancillary reference services is set out in the allocation of total revenue section (at paragraph 1687) of this decision. The reference tariffs to recover this forecast revenue and the mechanism to vary these tariffs during the AA5 period for the references services are set out in the reference tariffs section (at paragraph 1697) and tariff variation mechanism section (at paragraph 1766) of this decision. The ERA required the following amendment.

> **Draft Decision Required Amendment 5**
>
> ATCO must amend the values for total revenue (nominal) to reflect the values set out in Table 22 of [the] draft decision. [Table 34 of this final decision]

## *ATCO's response to the draft decision*

263. ATCO applied the building block approach to propose a revised total revenue requirement for AA5 of $931.4 million compared to $1,025 million in its initial proposal. Table 35 details ATCO's proposed building block components.

**Table 35: ATCO's revised proposed total revenue requirement for AA5 ($ million nominal)**

| Building blocks | 2020 | 2021 | 2022 | 2023 | 2024 | Total |
|---|---|---|---|---|---|---|
| Operating expenditure | 66.1 | 68.9 | 72.3 | 74.9 | 76.5 | 358.7 |
| Return of the projected capital base | 48.3 | 58.7 | 61.1 | 63.4 | 66.6 | 298.1 |
| Inflationary gain in return on assets | (17.0) | (17.9) | (18.5) | (19.1) | (19.7) | (92.2) |
| Return on the projected capital base | 65.0 | 68.1 | 70.5 | 72.9 | 74.9 | 351.4 |
| Return on working capital | 1.1 | 1.1 | 1.1 | 1.2 | 1.2 | 5.7 |
| Tax payable | 5.2 | 4.1 | 3.6 | 3.2 | 3.2 | 19.3 |
| Value of imputation credits | (2.6) | (2.1) | (1.8) | (1.6) | (1.6) | (9.6) |
| **Total revenue (Unsmoothed)** | **166.0** | **181.0** | **188.3** | **194.8** | **201.2** | **931.4** |

*Source:* ATCO Gas Australia*, 2020-24 Revised Plan (Access Arrangement Information),* p. 230, Table 16.2

## *Submissions to the ERA*

264. None of the submissions made to the ERA addressed the overall calculation of total revenue. Submissions that addressed one or more of ATCO's total revenue building block components are discussed under the following sections.

- operating expenditure
- opening capital base
- projected capital base
- return on the regulatory capital base
- depreciation
- taxation
- working capital.

## *Final decision*

265. The ERA's reasoning for each of the building blocks of rule 76 of the NGR is set out in the sections identified in paragraph 264. The resulting total revenue in nominal dollars from the building blocks (operating expenditure, return on the projected capital base, depreciation of the projected capital base and the estimated cost of corporate income tax) is set out in Table 36. As there was no incentive scheme that operated in AA4, no increments or decrements affected AA5 revenue.

**Table 36: ERA's final decision total revenue building blocks AA5 ($ million nominal)**

| Building blocks | 2020 | 2021 | 2022 | 2023 | 2024 | Total |
|---|---|---|---|---|---|---|
| Regulatory operating expenditure | 62.97 | 65.17 | 67.39 | 69.87 | 71.40 | **336.79** |
| *Operating expenditure* | 62.21 | 64.41 | 66.52 | 68.96 | 70.46 | **332.56** |
| *Return on working capital* | 0.76 | 0.76 | 0.87 | 0.91 | 0.94 | **4.23** |
| Return on capital base | 53.70 | 56.04 | 57.81 | 59.48 | 61.10 | **288.14** |
| Regulatory depreciation | 31.92 | 41.22 | 42.90 | 44.40 | 47.10 | **207.54** |
| *Depreciation* | 46.65 | 56.59 | 58.76 | 60.71 | 63.87 | **286.59** |
| *Inflationary gain* | (14.73) | (15.37) | (15.86) | (16.32) | (16.76) | **(79.05)** |
| Regulatory corporate income tax | 0.50 | 1.68 | 1.83 | 1.82 | 1.96 | **7.80** |
| *Corporate income tax* | 1.00 | 3.36 | 3.66 | 3.65 | 3.93 | **15.59** |
| *Imputation credits* | (0.50) | (1.68) | (1.83) | (1.82) | (1.96) | **(7.80)** |
| **Total revenue** | **149.09** | **164.10** | **169.93** | **175.57** | **181.57** | **840.26** |

*Source: ERA, GDS Tariff Model, November 2019*

266. Where ATCO has calculated the components of total revenue (discussed in the subsequent sections of this final decision) in real December 2019 dollars, this has been done on a forecast of inflation from December 2018 to December 2019. ATCO had used the actual Consumer Price Index (CPI) for inflation up to December 2018. The use of real dollars for operating and capital expenditure aids in the comparison of changes in expenditure over time that are not driven by the general increase in prices.

267. However, the ERA has adjusted ATCO's expenditure forecasts to account for the two quarters of published CPI for the March and June quarters of 2019 and applied two quarters of forecast inflation using the inflation parameter determined as part of the calculation of the rate of return. The resulting final decision inflation index numbers are provided in Table 37.

**Table 37: Inflation indices used to calculate real 2019 dollars**

| Inflation index | December 2018 | March 2019 | June 2019 | September 2019 | December 2019 |
|---|---|---|---|---|---|
| ATCO revised proposal | 114.1 | 114.6 | 115.1 | 115.6 | 116.1 |
| ERA final decision | 114.1 | 114.1 | 114.8 | 115.3 | 115.5 |

*Source: ERA calculation; ERA, GDS Tariff Model, November 2019*

268. The allocation of total revenue to the haulage and ancillary reference services is set out in the allocation of total revenue section (at paragraph 1687) of this decision. The reference tariffs to recover this forecast revenue and the mechanism to vary these tariffs during the AA5 period for the references services are set out in the reference tariffs section (at paragraph 1697) and tariff variation mechanism section (at paragraph 1766) of this decision.

**Required Amendment 4**

The values for total revenue (nominal) must reflect the values set out in Table 36 of this final decision.

## *Operating expenditure*

269. Rule 91 of the NGR states the criteria the ERA must consider when approving a service provider's operating expenditure:

> **91 Criteria governing operating expenditure**
>
> (1) 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.
>
> (2) The [ERA's] discretion under this rule is limited.

270. Rule 74 of the NGR states specific requirements for forecasts and estimates:

> **74 Forecasts and estimates**
>
> (1) Information in the nature of a forecast or estimate must be supported by a statement of the basis of the forecast or estimate.
>
> (2) A forecast or estimate:
>
> (a) must be arrived at on a reasonable basis; and
>
> (b) must represent the best forecast or estimate possible in the circumstances.

271. Rule 71 of the NGR states the considerations the ERA may and should take into consideration when evaluating forecast operating expenditure.

> **71 Assessment of compliance**
>
> (1) 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.
>
> (2) The [ERA] must, however, consider, and give appropriate weight to, submissions and comments received when the question whether a relevant access arrangement proposal should be approved is submitted for public consultation.

## *ATCO's initial proposal*

272. ATCO's initial AA5 proposal included $357.36 million for total operating expenditure, which was for a five-year period.[123] For comparison, ATCO's AA4 period was five-and-a-half years and the estimated total operating expenditure was $354.9 million in ATCO's initial proposal.[124] ATCO's forecast yearly operating expenditure in the initial AA4 proposal was 10.78 per cent higher than its estimated actual yearly operating expenditure during the period.

273. ATCO's initial proposed operating expenditure for AA5 was the sum of:

- Estimates for the network, corporate and IT operating expenditure categories derived using the base-step-trend method.
  - Under this method, operating expenditure forecasts for these cost categories were based on costs incurred in an efficient base year plus adjustments to account for anticipated differences between the base year and the AA5 years.
- Specific yearly forecasts for unaccounted for gas (UAFG) and ancillary services.
  - Specific forecasts were calculated for these cost categories because ATCO considered that these categories' expenditure profiles over AA5 were not suitably captured by the method of growth in the base-step-trend method.

274. ATCO also presented a bottom-up forecast of operating expenditure as a check of the reasonableness of the base-step-trend forecast.

275. ATCO considered the base-step-trend forecast combined with specific forecasts represented the best possible forecast of its efficient operating expenditure because:

- The base-step-trend method used the operating expenditure incurred in an efficient base year and adjusted for expected changes over the forecast term.[125]
- Benchmarking supplied by ATCO showed its levels of operating expenditure were relatively efficient in comparison to a sample of entities between 2013 and 2017.[126] ATCO considered that, as this benchmarking indicated that it was operating efficiently, using the most recent year's incurred operating expenditure as a starting point and applying appropriate adjustments to reflect future operational changes should yield a forecast which best reflected the operating expenditure of a prudent service provider operating efficiently.

276. Table 38 shows ATCO's initial proposed forecast operating expenditure for AA5 according to the base-step-trend forecast combined with specific forecasts, broken

[123] $ million real as at 31 December 2019. ATCO Gas Australia, *2020-24 Plan* (*Access Arrangement Information)*, 31 August 2018, p. 75, Table 11.3.

[124] $ million real as at 31 December 2019. The estimated operating expenditure for AA4 reflects actual operating expenditure for June 2014 to December 2017 inclusive, and estimates for 2018 and 2019. ATCO Gas Australia, *2020-24 Plan* (*Access Arrangement Information)*, 31 August 2018, p. 36, Table 5.5.

[125] ATCO Gas Australia, *2020-24 Plan* (*Access Arrangement Information)*, 31 August 2018, p. 74.

[126] ATCO Gas Australia, *2020-24 Plan* (*Access Arrangement Information),* 31 August 2018, p. 37, p. 77, and *Attachment 5.1, Benchmarking Partial Productivity Performance.*

down into its components. ATCO did not include a specific adjustment for productivity.

**Table 38 ATCO initial proposed forecast operating expenditure for AA5 ($ million real as at 31 December 2019)**

| | 2020 | 2021 | 2022 | 2023 | 2024 | AA5 total |
|---|---|---|---|---|---|---|
| Base year | 54.75 | 54.75 | 54.75 | 54.75 | 54.75 | 273.76 |
| Recurrent step changes | 1.36 | 1.55 | 1.80 | 1.90 | 1.93 | 8.53 |
| Non-recurrent step changes | 0.87 | 0.94 | 2.11 | 2.27 | 1.86 | 8.06 |
| Output growth | 0.86 | 1.70 | 2.58 | 3.47 | 4.43 | 13.04 |
| Input cost | 0.58 | 1.17 | 1.81 | 2.43 | 3.04 | 9.02 |
| Productivity growth | - | - | - | - | - | - |
| **Sub-total network, corporate and IT** | **58.41** | **60.12** | **63.05** | **64.82** | **66.01** | **312.40** |
| UAFG | 6.30 | 6.25 | 6.07 | 5.90 | 5.80 | 30.32 |
| Ancillary services | 2.83 | 2.88 | 2.93 | 2.97 | 3.02 | 14.64 |
| **Total forecast operating expenditure** | **67.55** | **69.25** | **72.05** | **73.69** | **74.83** | **357.36** |

Source: ATCO Gas Australia, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 75, Table 11.3.

277. ATCO used an estimate of its 2019 operating expenditure as a base year to estimate the initial network, corporate and IT operating expenditure forecast for AA5. This was the final year of the AA4 period. ATCO estimated the 2019 base operating expenditure for network, corporate and IT costs as $54.75 million.[127] ATCO estimated this amount as follows:

- ATCO determined the level of its operating expenditure "outperformance" in 2017 by subtracting actual network, corporate and IT costs for 2017 from the AA4 final decision forecast expenditure for those categories for 2017.
- ATCO subtracted the amount calculated in the preceding step from the AA4 final decision forecast network, corporate and IT operating expenditure for 2019.
- From the amount calculated in the preceding step, ATCO adjusted for non-recurrent costs in 2017 and 2019 as follows:
  - ATCO removed costs for preparing its AA5 submission, which were included in the forecast operating expenditure for 2019 in the AA4 final decision. ATCO's reasoning for removing this amount from the base year estimate was that those costs would not be a recurring cost item during AA5.[128]

[127] $ million real as at 31 December 2019.

[128] ATCO Gas Australia, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, pp. 76-77.

– ATCO added $0.66 million so that the amount of short-term employee incentive payments in the efficient base year operating expenditure equalled the actual amount paid (rather than the provisioned amount).

278. For each year in AA5, step changes were made to account for additional recurring costs of safety, compliance and regulatory activities that were not included in the base year. As shown in Table 38, ATCO's initial base-step-trend operating expenditure forecast included step changes for recurrent operating expenditure of $8.53 million[129] over AA5 which included costs for:

- additional leak survey and repair activities
- the addition of new offtake facilities to the Parmelia Gas Pipeline
- new installations of supervisory control and data acquisition assets.

279. The proposed step change for additional leak survey and repair reflected costs for an expansion of the scope of existing leak survey activities. ATCO stated that the expansion of these activities commenced in 2018 and would continue into AA5 with the inclusion of meter positions in high-density community use locations, city centre, commercial and residential areas.[130] ATCO stated that this was driven by the formal safety assessment process conducted as required under the Gas Standards (Gas Supply and System Safety) Regulations (GSSR) 2000 (Part 4 – Distribution system safety). Standard AS/NZS 4645.1, Gas distribution networks - Network management, prescribes the requirement to complete a formal safety assessment to understand the risk and associated controls to manage leaks. ATCO stated that, due to a change in Standard AS/NZS 4645.1, its risk obligations had increased. After conducting the formal safety assessment, ATCO proposed to take further action to satisfy its obligations under this standard.

280. The proposed step change for new interconnections reflected costs for supporting the ongoing operation and maintenance of new offtake facilities (gate stations) to the Parmelia gas pipeline, including new gate stations within Rockingham (2020), South Metro (2021) and North Metro (2022).

281. The proposed step change for supervisory control and data acquisition (SCADA) reflected costs for supporting the ongoing operation and maintenance of additional SCADA assets. ATCO's initial proposal submitted that the costs for acquisition and installation of these assets should form part of its approved capital expenditure for AA5, as outlined in paragraphs 919 to 930. ATCO's view was that installation of these assets would enable it to optimise its distribution network through remote control of capacity management and enhanced data acquisition.

282. For each year in AA5, changes were made to account for expected non-recurrent costs not incurred within the base year. ATCO's initial base-step-trend operating expenditure forecast included total changes for non-recurrent operating expenditure of $8.06 million[131] over AA5. These included costs for:

- hazardous areas review and remediation

[129] $ million real as at 31 December 2019.

[130] 'High-density community use locations' were defined as areas where buildings of four or more storeys are prevalent, major shopping centres, schools, hospitals, aged care facilities, and major sporting and cultural facilities. Public infrastructure (e.g. roads and railways, trafficable tunnels) in direct proximity of the high-density community use area is also deemed to be part of the high-density community use area. ATCO Gas Australia, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 79.

[131] $ million real as at 31 December 2019.

- pipeline inline inspections
- mains reclassification
- preparation costs for the sixth access arrangement period (AA6)
- a review of ATCO's asset and business management system.

283. The proposed change for hazardous areas review and remediation covered proposed expenditure for a project commenced in 2018 to ensure that higher priority non-compliant equipment would be rectified within the required timelines. This project is due for completion in 2022. The proposed operating expenditure includes re-design costs, consultancy fees and costs for remediation of existing facilities associated with the project. ATCO states that its project for hazardous areas review and remediation was initiated based on recommendations arising from an external Gas Distribution System Safety Case audit conducted in 2017. This audit was conducted as part of ATCO's obligations to maintain its safety and operating plan in conjunction with the Australian Standard AS/NZS 4645.1.

284. The proposed change for pipeline inline inspections covers operating expenditure linked to the continuation of inspections of major pipelines into AA5 following on from other inspection project completions in AA4. To enable inspections to be carried out ATCO proposes that capital expenditure costs for necessary modifications to six pipelines should form part of its capital expenditure for AA5, as outlined in paragraph 948. ATCO states that the proposed operating expenditure change is driven by the outcome of ATCO's formal safety assessment, which highlighted internal inspections as an important risk control, forming part of ATCO's pipeline integrity management plans. High-pressure steel pipelines require internal inline inspections as prescribed in the standards *AS/NZS 2885.3:2001 Pipelines – Gas and liquid petroleum – Operation and maintenance* and *AS/NZS 2885.3:2012 Pipelines – Gas and liquid petroleum – Operation and maintenance*.

285. The proposed change for mains reclassification covered operating expenditure to continue a project ATCO commenced in AA4 to capture, record and amend maintenance plans for approximately 6,000 locations on the gas network information system. ATCO cites a change to the Australian Standard for gas distribution as the driver for the initiation of the mains reclassification project. The Australian Standard (*Gas distribution networks Part 1: Network management*) defines a main (gas pipe) as "a pipe installed to convey gas to individual services or other distribution facilities." According to ATCO, the standard definition for services was updated based on volume, and so ATCO redefined its criteria for mains and services and identified approximately 6,000 locations where its mains required updating to be available within the gas network information system.

286. The proposed change for the asset and business management system review covers operating expenditure for the planning and scoping phase of an upgrade of ATCO's enterprise resource planning system. The planning and scoping phase is scheduled to be completed in 2022. ATCO states that conditions attached to its Gas Distribution Licence, applicable under the *Energy Coordination Act 1994,* required it to have an asset management system in place. ATCO considers that its enterprise resource planning system enables it to monitor, maintain and replace assets prudently and efficiently.

287. The proposed change for AA6 preparation covered regulatory preparation costs for the access arrangement revision required for the period commencing 1 January 2025. These costs included consultancy fees, project management fees and additional resources related to the revision of the access arrangement.

288. For each year in AA5, escalation was added to the estimated base year network, corporate and IT operating expenditure to reflect additional operating expenditure expected to be incurred due to output growth from the base year. This additional expenditure included meter reading costs, leak surveys, network maintenance and incremental facility costs. ATCO's base-step-trend operating expenditure forecast included output growth escalation of $13.04 million over AA5.[132]

289. The output growth escalation factor was derived based on two factors that ATCO considered drove increases in operating expenditure: expected growth in customer numbers and expected growth in the physical size (measured in kilometres of mains) of the distribution network. ATCO cited analysis conducted by ACIL Allen and Economic Insights, for Australian Gas Networks and Multinet Gas respectively, to support the selection of these two factors.[133, 134]

290. These two growth rates were assigned weightings of 45 per cent and 55 per cent respectively to derive the output growth escalation factor. As support for the weightings, ATCO cited the Australian Energy Regulator's (AER) 2017 draft decision for Multinet Gas' access arrangement, in which the AER accepted use of the same growth factors and weightings to calculate an operating expenditure output growth escalation factor.[135]

291. Table 39 shows the output growth escalation rates ATCO applied in calculating its initial proposed operating expenditure for each year in AA5.

**Table 39 ATCO's initial proposed operating expenditure forecast – Output growth escalation factor**

| **Forecast growth factors** (%) | **Weighting** | **2020** | **2021** | **2022** | **2023** | **2024** |
|---|---|---|---|---|---|---|
| Percentage growth in the number of customers | 45 | 1.62 | 1.62 | 1.63 | 1.64 | 1.65 |
| Percentage growth in the length of mains | 55 | 1.52 | 1.44 | 1.49 | 1.46 | 1.65 |
| Weighted annual output growth escalation rate | - | 1.57 | 1.52 | 1.55 | 1.54 | 1.65 |

Source: ATCO Gas Australia, *2020-24 Plan (Access Arrangement Information),* 31 August 2018, p. 83, Table 11.6.

292. For each year in AA5, a real escalation was added to reflect additional operating expenditure due to input cost growth from the base year cost level in excess of inflation. ATCO's initial base-step-trend operating expenditure forecast included input cost growth escalation of $9.02 million over AA5.[136]

293. The input growth escalation factor was derived by applying:

132 $ million real as at 31 December 2019.

133 ACIL Allen, *Opex Partial Productivity Analysis*, 20 December 2016, pages 27-28, prepared for Australian Gas Networks Limited.

134 Economic Insights, *Gas Distribution Businesses Opex Cost Function*, prepared for Multinet Gas, 22 August 2016.

135 Australian Energy Regulator, *Draft decision – Multinet Gas access arrangement 2018 to2022, Attachment 7 – Operating expenditure*, 6 July 2017, p. 23.

136 $ million real as at 31 December 2019.

- A 62 per cent/38 per cent weighted average of expected labour price growth and expected non-labour (materials) price growth. ATCO cites a report on Total Factor Productivity by the Pacific Economics Group as support for the weightings applied.[137]
- ATCO's consultant's (Synergies) forecast annual rate of growth in the Wage Price Index (WPI) for the Western Australian electricity, gas, water and waste water sector as the labour price growth rate.[138] ATCO did not include a real cost escalation for non-labour costs as it did not expect any price rises in excess of inflation for materials costs.

294. Table 40 shows the real input growth escalation rate applied by ATCO to derive its initial proposed operating expenditure for each year in AA5.

**Table 40 ATCO's initial proposed operating expenditure forecast – Real input growth escalation factor**

| Input growth factor (%) | Weighting | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|---|
| Labour | 62 | 1.64 | 1.64 | 1.64 | 1.62 | 1.66 |
| Materials | 38 | - | - | - | - | - |
| Weighted annual input growth rate | - | 1.02 | 1.02 | 1.02 | 1.00 | 1.03 |

Source: ATCO Gas Australia, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 83, Table 11.6.

295. The escalation factors applied did not include a productivity adjustment. ATCO's reasoning for this included:

- It was already operating efficiently, a view ATCO believes is supported by the benchmarking cited at paragraph 275.
- A productivity adjustment will affect its ability to provide safe and reliable services to consumers and therefore harm consumer interests in the long term.
- ATCO's proposal to absorb approximately $2.63 million of certain costs that it is not seeking to include within approved operating expenditure for AA5.[139] ATCO stated that it would not seek to include these costs within approved operating expenditure as the benefits of these projects would be realised during AA5.

296. The proposed UAFG expenditure was calculated as forecast unit gas prices for UAFG multiplied by forecast UAFG volumes. To estimate the expected volume of UAFG ATCO also forecast its UAFG rates as a percentage of total gas throughput for each year of AA5.

[137] Pacific Economics Group, *TFP Research for Victoria's Power Distribution Industry,* December 2004.

[138] ATCO Gas Australia, *2020-24 Plan (Access Arrangement Information)*, *Attachment 12.9 Wage price index forecast*, 31 August 2018, p. 74.

[139] These costs are listed and described in: ATCO Gas Australia, *2020-24 Plan* (*Access Arrangement Information)*, pp. 84-85.

297. ATCO applied a forecast unit price for UAFG that it estimated based on publicly available information and noted that it would conduct a tender process in 2018 which would fix the actual price of UAFG for AA5. ATCO stated that it would apply the actual unit price of UAFG determined through the tender to update its proposed UAFG operating expenditure following the draft decision.

298. ATCO forecast a decrease in its UAFG rate from 2.55 per cent in 2020 to 2.46 per cent in 2024.[140] These forecast rates were similar to but below the AA4 approved UAFG rates. The throughput estimates on which ATCO based its initial UAFG volume forecast are based on its initial demand forecast. Based on ATCO's initial UAFG rate and demand assumptions, its initial forecast UAFG costs for AA5 were $30.32 million.[141]

299. ATCO calculated the proposed ancillary services expenditure ($14.64 million) by multiplying its anticipated unit rate costs for each ancillary service by the expected volumes of the services over AA5.[142]

300. ATCO presented a bottom-up operating expenditure forecast as a sense check to the base-step-trend forecast. The bottom-up forecast derived total forecast operating expenditure by identifying the expected activities for each cost category over AA5 and summing the expenses ATCO expected to incur for those activities. ATCO's bottom-up forecasts of UAFG and ancillary services costs were the same as the specific forecasts made under the base-step-trend method. The total bottom-up operating expenditure forecast for AA5 in ATCO's initial proposal was $364.2 million.[143]

## *Draft decision*

301. In its draft decision, the ERA required ATCO to amend its forecast operating expenditure for AA5 to $316.81 million, which was derived as shown in Table 41.[144] This was $40.55 million less than the operating expenditure proposed in ATCO's initial access arrangement revision proposal ($357.36 million).[145]

> **Draft Decision Required Amendment 6**
>
> ATCO must amend the values for operating expenditure (real) to reflect the values set out in Table 41 of [the] draft decision [Table 41 in this final decision].

[140] ATCO Gas Australia, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 70.

[141] $ million real as at 31 December 2019.

[142] $ million real as at 31 December 2019.

[143] $ million real as at 31 December 2019.

[144] $ million real as at 31 December 2019.

[145] $ million real as at 31 December 2019. ATCO Gas Australia, *2020-24 Plan* (*Access Arrangement Information)*, 31 August 2018, p. 75, Table 11.3.

**Table 41 Draft decision revised operating expenditure forecast for AA5 ($ million real as at 31 December 2019)**

| | 2020 | 2021 | 2022 | 2023 | 2024 | AA5 Total |
|---|---|---|---|---|---|---|
| Base year network, corporate and IT expense | 50.35 | 50.35 | 50.35 | 50.35 | 50.35 | **251.74** |
| **Step changes** | | | | | | |
| Additional leak survey | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **2.51** |
| Pipeline inline inspections | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **3.05** |
| AA6 regulatory preparation | 0.00 | 0.00 | 0.00 | 1.23 | 1.06 | **2.29** |
| Output growth escalation | 1.44 | 1.32 | 1.21 | 1.08 | 0.97 | **6.02** |
| Input growth escalation | 0.51 | 0.68 | 0.86 | 1.05 | 1.23 | **4.33** |
| UAFG | 6.26 | 6.19 | 5.96 | 5.75 | 5.60 | **29.76** |
| Ancillary services | 3.46 | 3.44 | 3.42 | 3.40 | 3.39 | **17.11** |
| **Total** | **63.03** | **62.99** | **63.32** | **63.87** | **63.60** | **316.81** |

*Source: ERA, Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024, 18 April 2019, Table 41, p. 77.*

302. The ERA's draft decision assessed the following aspects of ATCO's proposed forecast operating expenditure for AA5:

- Base-step-trend forecasting method.
- Selection of the most appropriate base year.
- Adjustments to derive efficient base year operating expenditure.
- Recurrent step changes proposed to ATCO's base year network, corporate and IT operating expenditure.
- Non-recurrent step changes proposed to ATCO's base year network, corporate and IT operating expenditure.
- Output growth escalation factor.
- Input growth escalation factor.
- UAFG operating expenditure.
- Ancillary service operating expenditure.

### *Base-step-trend forecasting method*

303. The ERA concluded that the base-step-trend method was appropriate for forecasting ATCO's AA5 network, corporate and IT operating expenditure, and that it was appropriate to apply adjustments to account for inefficiencies in the base year and efficient costs not captured in the base year and annual rates of change to account for changes in the real price level and output growth in the forecast period. The ERA considered that ATCO's past costs for the network, corporate and IT cost categories provided a reliable starting point for determining an efficient forecast as these costs

were largely recurrent, and with appropriate adjustments the base-step-trend method would provide a reliable estimate of efficient costs for those categories.[146]

304. The draft decision revised ATCO's application of the base-step-trend method as some of ATCO's assumptions resulted in a forecast that did not yield the best possible forecast or estimate, as required by rule 74 of the NGR. Further, some of ATCO's assumptions did not yield a forecast that reflected the operating expenditure that would be incurred by a prudent service provider acting efficiently and in accordance with accepted good industry practice, as is required by NGR rule 91.

305. The assumptions that the ERA considered inconsistent with rules 74 and 91 were:

- Use of estimated operating expenditure for 2019 as the base year.
- Some of the adjustments applied to the actual base year (2019) operating expenditure to derive the efficient base year operating expenditure.
- Some of the step changes and escalation factors applied.

306. As the ERA accepted the use of the base-step-trend method for forecasting ATCO's operating expenditure it did not scrutinise the bottom-up forecast of operating expenditure presented by ATCO in depth in the draft decision.

307. The ERA's draft decision on operating expenditure also included consideration of:

- The amount of corporate overheads allocated to ATCO's Australian regulated gas business from ATCO Australia and the ATCO Group. The draft decision found these transactions did not cause a material overstatement of ATCO's historical operating expenditure, including in the base year.[147]
- The indirect costs included in ATCO's operating expenditure forecast. The draft decision included an amendment to exclude $25.59 million of costs from the regulatory asset base for AA4 which ATCO proposed to capitalise as a result of a change in ATCO's capitalisation policy for AA4. This amendment is described in paragraphs 597 to 603 and 605 of this final decision.

***Selection of the most appropriate base year for network, corporate and IT operating expenditure***

308. The ERA selected 2017, rather than 2019, as the base year for the revised network, corporate and IT operating expenditure forecast. This was because ATCO's proposal to use 2019 as the starting point for deriving the efficient base year cost for network, corporate and IT operating expenditure did not yield the best forecast or estimate possible in the circumstances, as required by NGR rule 74(2)(b).

309. ATCO's base-step-trend method used a recent representative year of actual expenditure to determine efficient base year costs. The ERA considered that ATCO's use of an estimate of 2019 operating expenditure as the base year was an incorrect application of the base-step-trend method. ATCO used the AA4 final decision forecast 2019 operating expenditure and reduced this by the level of outperformance in 2017. The operating expenditure for 2019 in the AA4 final decision is a forecast

[146] ERA, *Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024*, 18 April 2019, paragraph 218.

[147] ERA, *Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024*, 18 April 2019, paragraph 223.

that was prepared in 2014. The ERA concluded that ATCO's approach to deriving the 2019 base year operating expenditure unnecessarily introduced forecasting error whereas the actual operating expenditure for 2017 was did not require estimation and therefore did not include forecasting error.[148]

310. The ERA's selection of 2017, rather than 2019, as the base year for the revised network, corporate and IT operating expenditure forecast averted Synergy's concern that ATCO's operating expenditure efficiency based on its forecast operating expenditure for 2019 was low, relative to 2017.[149]

### *Adjustments to derive efficient base year network, corporate and IT operating expenditure*

311. The ERA's calculation of efficient base year operating expenditure for ATCO's AA5 network, corporate and IT costs is set out in Table 42.

**Table 42 Draft decision revised forecast efficient base year network, corporate and IT operating expenditure ($ million real as at 31 December 2019)**

| Line item | Amount |
|---|---|
| 2017 actual operating expenditure (all categories) | 60.70 |
| Adjustments: | |
| Staff incentives | -0.66 |
| Business development and marketing | -1.90 |
| IT | -0.70 |
| Total adjustments | -3.26 |
| *Subtract* 2017 actual UAFG and ancillary services expenses: | |
| UAFG | 6.05 |
| Ancillary services | 1.04 |
| Total UAFG and ancillary services | 7.09 |
| Efficient base year network, corporate and IT operating expenditure | 50.35 |

*Source: ERA, Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024, 18 April 2019, p. 64, Table 29.*

312. The draft decision adjustments to the base year network, corporate and IT operating expenditure (shown in Table 42) were for three items included in ATCO's 2017 actual operating expenditure which the ERA considered did not represent an efficient expenditure level for those items. These were staff bonuses, business development and marketing and IT.

[148] ERA, *Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024*, 18 April 2019, paragraph 225.

[149] Synergy, *Response to Issues Paper on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement,* 14 November 2018, p. 7.

313. The portion ($0.66 million) of staff bonuses above the provisioned amount ($0.96 million) was subtracted from the base year operating expenditure. This was because the ERA considered that the provisioned amount included in the 2017 base year ($0.96 million) more closely represented a normal and efficient level of annual employee bonus expense than the 2017 actual expense for this item, as required by rule 91 of the NGR.[150]

314. The draft decision operating expenditure forecast included an adjustment of $1.90 million to ATCO's base year business development and marketing expenditure. This reduced the expenditure from the actual amount incurred by ATCO in 2017 to the amount included in the AA4 final decision forecast operating expenditure. The ERA considered the adjusted amount represented a more efficient level of operating expenditure, which aligns with good industry practice as required by rule 91 of the NGR. The ERA's position was based on ATCO's 2017 business development and marketing expense being unusually high compared to historical levels and a lack of evidence that the level of business development and marketing expense that occurred in 2017 would recur annually over AA5. ATCO incurred approximately $3.82 million of business development and marketing expense in 2017, compared to previous expenditure of $2.42 million in 2016 and $1.37 million in 2015.[151]

315. Further, the ERA considered that ATCO's proposed business development and marketing expenditure could not be justified based on the benefit it would provide to consumers. Rule 100 of the NGR sets out a general requirement that the provisions of an access arrangement must be consistent with the national gas objective, which is to promote efficient investment in and operation of natural gas services for the long-term interests of consumers. ATCO cited expected falling demand and other expected changes to its commercial environment and lower than average marketing expenditure compared to its Australian peers as support for its proposed business development and marketing expenditure. The ERA considered that there was no evidence that ATCO's proposed level of expenditure would benefit existing customers.[152]

316. The draft decision operating expenditure forecast included an adjustment of $0.70 million to the base year IT expense. This reduced the actual amount incurred by ATCO in 2017 to the average actual amount incurred by ATCO between 2015 and 2017. The adjusted amount was considered to represent a more efficient level of operating expenditure which aligned with good industry practice as required by rule 91 of the NGR. ATCO's 2017 IT expense was anomalously high and there was no evidence that this level of expense would recur annually over AA5. ATCO incurred $9.72 million of IT costs in 2017, which was $1.20 million higher than in 2016 and $0.70 million higher than it budgeted for 2018.[153]

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150 ATCO's revised proposal subsequently clarified that its 2017 operating expenditure only included the provisioned amount for short term employee incentive payments ($0.96 million). ERA, *Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024*, 18 April 2019, paragraph 164. ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 109.

151 Energy Market Consulting Associates, *Review of Technical Aspects of the Proposed Access Arrangement,* 15 January 2019, paragraphs 481 and 483.

152 ERA, *Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024*, 18 April 2019, paragraph 235.

153 Energy Market Consulting Associates, *Review of Technical Aspects of the Proposed Access Arrangement,* 15 January 2019, paragraphs 488. ATCO has explained that $0.5 million of the increase arose from an accounting reclassification from 'Corporate' costs due to a change in its account allocation system.

### *ATCO's proposed step changes for recurrent network, corporate and IT operating expenditure*

317. Table 43 shows the step changes for recurrent operating expenditure which ATCO included in its initial operating expenditure forecast and the step changes the ERA included in its draft decision operating expenditure forecast.

**Table 43 Step changes included in ATCO's initial operating expenditure forecast and the step changes included in the draft decision operating expenditure forecast ($ million real as at 31 December 2019)**

| | ATCO proposed | ERA draft decision |
|---|---|---|
| Additional leak survey and repair | 5.02 | 2.51 |
| New interconnections | 1.19 | - |
| SCADA | 2.32 | - |
| **Total** | **8.53** | **2.51** |

Source: ERA, *Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024*, 18 April 2019, p. 66, Table 30 and p. 67, Table 31.

318. The ERA concluded that ATCO's proposed additional leak survey and repair activities were in accordance with accepted industry practice. Based on this, and given that these activities were not included in ATCO's 2017 operating expenditure, a step change for these costs was included in the draft decision operating expenditure forecast for AA5. However, the ERA was not satisfied that the full amount of the proposed step change was in line with what would be incurred for this activity by a prudent service provider acting efficiently, as required by rule 91 of the NGR. This was because the cost estimates in the leak survey and repair project brief provided with the initial proposal were high-level and it was not clear how the estimates were derived. The ERA's draft decision, therefore, included 50 per cent of the proposed step change amount ($2.51 million) in the revised operating expenditure forecast for AA5 and stated that ATCO must supply more information to demonstrate clearly that the proposed amount was efficient.[154]

319. ATCO's proposed step change for new interconnections was linked to the proposed AA5 capital expenditure for construction of new offtake facilities described in paragraphs 942 to 947. Given the ERA's conclusion in the draft decision that the proposed capital expenditure for the new offtake facilities did not satisfy rule 79 of the NGR and was therefore not conforming capital expenditure, the ERA considered that the associated operating expenditure would not be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, as required by rule 91 of the NGR. The ERA therefore did not include the proposed $1.19 million step change for new interconnections in the operating expenditure forecast for AA5.

320. ATCO's proposed step change for SCADA activities was linked to the proposed capital expenditure for acquisition and installation of new SCADA assets during AA5 described in paragraphs 919 to 938. Given the ERA's position that the proposed capital expenditure for the new SCADA assets did not satisfy rule 79 of the NGR, the ERA concluded that the associated operating expenditure would not be incurred by

[154] ERA, *Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024*, 18 April 2019, paragraph 239.

a prudent service provider acting efficiently, in accordance with accepted good industry practice, as required by rule 91 of the NGR. The draft decision operating expenditure forecast therefore did not include the proposed $2.32 million step change for SCADA activities.

### *ATCO's proposed changes for non-recurrent network, corporate and IT operating expenditure*

321. The non-recurrent costs which ATCO included as changes in its initial operating expenditure forecast for AA5 are shown in Table 44.

**Table 44 Changes for non-recurrent operating expenditure included in ATCO's initial operating expenditure forecast for AA5 ($ million real as at 31 December 2019)**

| | **AA5** total |
|---|---|
| Hazardous areas review & remediation | 0.76 |
| Pipeline inline inspections | 3.05 |
| Mains reclassification | 0.59 |
| Asset & business management system review | 0.72 |
| Access arrangement six regulatory preparation | 2.92 |
| **Total proposed step changes for non-recurrent operating expenditure** | **8.06** |

Source: ATCO Gas Australia, *2020-24 Plan (Access Arrangement Information),* 31 August 2018, p. 80, Table 11.5.

322. As described in paragraph 283, ATCO stated that its proposed change for hazardous areas review and remediation was driven by an external audit conducted as part of the obligation to maintain its safety and operating plan in conjunction with the Australian Standard. However, ATCO did not adequately demonstrate that its compliance obligations under the applicable Standard materially changed for AA5; rather the proposed change was for activities that were considered part of ATCO's current operations.[155] Including the proposed change in the forecast would therefore have added an amount that was already included in the efficient base year operating expenditure, resulting in an operating expenditure forecast that was not efficient and which would not comply with rule 91 of the NGR. The proposed change for hazardous areas review and remediation activities therefore was not included in the draft decision operating expenditure forecast.

323. The proposed change for pipeline inspections costs was for costs that represented good industry practice not included in the 2017 base year. The amount proposed, being a revealed cost, reflected the efficient cost of undertaking this activity, as required under rule 91 of the NGR. The proposed $3.05 million step change for pipeline inline inspections was therefore included in the draft decision operating expenditure forecast.

324. The proposed change for the mains reclassification project covered activities that ATCO is already performing. Including the proposed amount for the mains reclassification activities as a change in the forecast would therefore have added an

[155] Energy Market Consulting Associates, *Review of Technical Aspects of the Proposed Access Arrangement,* 15 January 2019, paragraph 506.

amount that was already included in the efficient base year operating expenditure, resulting in an operating expenditure forecast that would not comply with rule 91 of the NGR. The proposed change for the mains reclassification project was therefore not included in the draft decision operating expenditure forecast.

325. As described in paragraph 285, ATCO cited a change to the Australian Standard for gas distribution as the driver for the initiation of the mains reclassification project. However, the ERA was not satisfied that ATCO had demonstrated that its compliance obligations for mains under the applicable Standard materially changed for AA5. ATCO was already performing the activities described in the project brief as part of complying with its existing compliance obligations.[156] The scale of the mains reclassification activities performed by ATCO would likely increase given an increase in ATCO's network size. The ERA therefore concluded that any increase in ATCO's obligations for the mains classification project due to changes in scale would be captured by the growth escalation outlined in paragraphs 283 to 291 and the draft decision operating expenditure forecast did not include the proposed change for mains reclassification.

326. The proposed change for the asset and business management system review covered routine operational activities that ATCO was already performing.[157] The expenditure for these activities was, therefore, already captured by the base year amount, and including the proposed change for these activities in the forecast would have added an amount that was already included in the efficient base year operating expenditure, resulting in an operating expenditure forecast which would not comply with rule 91 of the NGR. The proposed change for the asset and business management system review was therefore not included in the draft decision operating expenditure forecast.

327. The draft decision operating expenditure forecast included a change of $2.3 million for access arrangement six preparation costs. In 2017 ATCO did not incur any access arrangement preparation costs. It is therefore appropriate to include a non-recurrent change in the operating expenditure forecast to allow for this activity to be undertaken during AA5.

328. While the $2.92 million change proposed by ATCO for preparation costs was for activities that represented good industry practice, it was not clear that the proposed amount was efficient. The final decision for AA4 included $2.10 million (real dollars as at 31 December 2014) for preparation costs for access arrangement five, which was equal to $2.29 million when restated to real dollars as at 31 December 2019. ATCO did not provide support for the proposed AA6 preparation costs exceeding the AA5 preparation costs in real terms and overall it was unclear that the proposed amount is efficient. The AA6 preparation costs included in the draft decision operating expenditure forecasts were therefore set to $2.29 million (2019 dollars), which was equal to the AA5 preparation costs included in the AA4 final decision in real terms. The $2.29 million was distributed between the years ATCO proposed to incur this expenditure (2023 and 2024) in the same proportions as ATCO's proposed distribution.

[156] Energy Market Consulting Associates, *Review of Technical Aspects of the Proposed Access Arrangement,* 15 January 2019, paragraph 506.

[157] Energy Market Consulting Associates, *Review of Technical Aspects of the Proposed Access Arrangement,* 15 January 2019, paragraph 506.

329. Table 45 summarises the changes for non-recurrent operating expenditure included in the draft decision operating expenditure forecast for AA5.

**Table 45 Draft decision – Included changes for non-recurrent operating expenditure in draft decision operating expenditure forecast ($ million real as at 31 December 2019)**

| | 2020 | 2021 | 2022 | 2023 | 2024 | AA5 total |
|---|---|---|---|---|---|---|
| Included change - Pipeline inline inspections | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **2.51** |
| Included change - Access arrangement six preparation costs | - | - | - | 1.23 | 1.06 | **2.29** |

Numbers may not add due to rounding.

Source: ERA, *Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024*, 18 April 2019, p. 69, Table 33.

### *Output growth escalation factor*

330. The ERA concluded that inclusion of an output growth escalation factor in the operating expenditure forecast to account for fluctuations in the scale of ATCO's operations contributed to a reasonable basis for deriving the operating expenditure forecast when using the base-step-trend approach, in line with NGR rule 74(2)(a).

331. The output growth escalation factor applied to the draft decision operating expenditure forecast was calculated using the factors proposed by ATCO, being expected growth in customer numbers and expected growth in the physical size (measured in kilometres of mains) of the distribution network. The weightings proposed by ATCO for customer numbers and kilometres of mains (45 per cent and 55 per cent) were included in calculating the output growth escalation factor.

332. The ERA applied its draft decision forecast for customer numbers growth to calculate the output growth escalation factor. The amended demand forecast in the draft decision estimated that ATCO's customer numbers would be lower over AA5 (see Table 10). Given that customer numbers were forecast to decrease over AA5, no growth in the total length of the mains in the network was included in the output escalation for AA5, and the forecast length of the mains in the network was set equal to the 2019 length.

333. Table 46 summarises the output growth escalation included in the draft decision operating expenditure forecast for AA5.

**Table 46 Draft decision - Output growth escalation for AA5 included in draft decision operating expenditure forecast (units specified by row)**

| | Weighting | 2020 | 2021 | 2022 | 2023 | 2024 | Total |
|---|---|---|---|---|---|---|---|
| Customer numbers growth rate (%) | 45 | 0.56 | -0.49 | -0.49 | -0.49 | -0.49 | - |
| Number of kilometres growth rate (%) | 55 | 0 | 0 | 0 | 0 | 0 | - |
| Weighted annual real output growth rate (%) | - | 0.25 | -0.22 | -0.22 | -0.22 | -0.22 | - |
| Output growth escalation included in the draft decision operating expenditure forecast for AA5 ($ million real as at 31 December 2019*) | - | 1.44 | 1.32 | 1.21 | 1.08 | 0.97 | **6.02** |

** The output growth escalation also applied an output growth escalation to the efficient base year amount of network, corporate and IT costs to account for output growth escalation between 2017 and 2019.*

*Source: ERA, Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024, 18 April 2019, p. 70, Table 34.*

### *Input real growth escalation factor*

334. The ERA concluded that inclusion of an input real growth escalation factor in the revised operating expenditure forecast to account for increases in labour and materials costs above inflation contributed to a reasonable basis for deriving the operating expenditure forecast when using the base-step-trend approach, in line with rule 74(2)(a) of the NGR.

335. The weightings proposed by ATCO for labour and materials costs (62 per cent and 38 per cent) were included in calculating the input real growth escalation factor in the draft decision operating expenditure forecast. The ERA outlined in its draft decision that the Australian Energy Regulator (AER) applied the same weightings for labour and materials costs in other recent access arrangement decisions.[158]

336. As the materials costs included in the 2017 base year were considered efficient and increases in the cost of materials were not expected to exceed Consumer Price Index (CPI) growth, the materials cost real growth rate of zero proposed by ATCO was applied to calculate the input growth escalation factor in the draft decision operating expenditure forecast. The ERA cited in its draft decision that the AER stated that setting the escalation for materials costs equal to CPI reflected its expectation that a prudent service provider would hedge its materials costs to reduce the potential for volatile input costs.[159] This view was also held by the Energy Markets Reform Forum, which expected that gas networks would undertake prudent hedging arrangements

[158] AER, *Draft Decision: Australian Gas Networks Access Arrangement 2016-21, Attachment 7 – Operating expenditure*, November 2015, p. 34; AER, *Final Decision: Australian Gas Networks Access Arrangement 2016-21, Attachment 7 – Operating expenditure*, May 2016, p. 15; AER, *Draft Decision: Jemena Gas Networks 2015-20, Attachment 7 – Operating expenditure*, November 2014, pp. 35-37; AER, *Final Decision: Jemena Gas Networks 2015-20, Attachment 7 – Operating expenditure, Attachment 7 – Operating expenditure*, June 2015, p. 17.

[159] AER, *Draft Decision: Jemena Gas Networks 2015-20, Attachment 7 – Operating expenditure*, November 2014, p. 37.

for commodity prices given the volatility of commodity prices and the relative certainty of gas distribution networks' demand for each of the products.[160]

337. The draft decision operating expenditure forecast did not apply ATCO's proposed labour cost real growth rate. ATCO's proposed labour cost growth rate added a growth premium of 50 basis points to the WPI for all industries to account for what ATCO viewed as a historical premium for wages growth in the electricity, gas, water and waste water sector over the all industries average.[161] The data on which ATCO based its premium estimate covered the period from September quarter 1998 to June quarter 2017. The ERA was not satisfied that this premium would continue into AA5.

338. As ATCO's consultant, Synergies, observed, wages growth for the electricity, gas, water and waste water sector had slowed since the mining boom peaked and was roughly in line with wages growth in other sectors.[162] The ERA was not satisfied that Synergies/ATCO's estimated premium of wages growth for the electricity, gas, water and wastewater sector over all industries wages growth would be regained during AA5. The draft decision also noted that ATCO's initial operating expenditure forecast did not include a productivity adjustment (see paragraphs 342 to 344). Given that a business with no productivity growth is unlikely to sustain real wage growth at above-average rates in the long term, the ERA concluded that it was not reasonable to expect wages growth for ATCO to exceed average wages growth without increases in ATCO's productivity. Based on the preceding, the labour cost inflation in ATCO's initial proposal was not considered reliably representative of the best forecast for the AA5 period, and was therefore inconsistent with rule 74(2)(b) of the NGR.

339. In order to calculate the best forecast of real labour escalation, the ERA used the average of recent and forecast Western Australian Treasury WPI growth and CPI growth. The Western Australian Treasury data applied is shown in Table 47.

**Table 47 Western Australian Wage Price Index data included in calculating the real annual labour escalation included in the draft decision operating expenditure forecast**

| | 2017/18 (actual) | 2018/19 (mid-year revision estimate) | 2019/20 (forward estimate) | 2020/21 (forward estimate) | 2021/22 (forward estimate) | Average 2017/18 to 2021/22 |
|---|---|---|---|---|---|---|
| Wage Price Index (%) growth | 1.5 | 1.75 | 2.75 | 3.0 | 3.25 | 2.45 |
| Consumer Price Index (%) growth | 1.0 | 1.5 | 2.0 | 2.5 | 2.5 | 1.90 |

Source: WA Department of Treasury, *Government Mid-Year Financial Projections Statement* (online) [accessed 1 April 2019], cited in ERA, *Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024, 18 April 2019, p. 72, Table 35.*

[160] AER, *Draft Decision: Jemena Gas Networks 2015-20, Attachment 7 – Operating expenditure*, November 2014, p. 37.

[161] ATCO Gas Australia, *2020-24 Plan (Access Arrangement Information), Attachment 12.9 Wage price index forecast*, 31 August 2018, p. 23 and p. 35.

[162] ATCO Gas Australia, *Access Arrangement Information*, *Attachment 12.9 Wage price index forecast*, 31 August 2018, p. 24.

340. The draft decision annual operating expenditure forecast applied a real labour escalation growth rate of 0.54 per cent. This was the best forecast or estimate possible for real labour escalation, as required by rule 74(2)(b) of the NGR.

341. Table 48 summarises the input growth escalation included in the draft decision operating expenditure forecast for AA5.

**Table 48 Draft decision - Input growth escalation included in the draft decision operating expenditure forecast for AA5 (units specified by row)**

| | Weighting | 2020 | 2021 | 2022 | 2023 | 2024 | Total |
|---|---|---|---|---|---|---|---|
| Annual labour escalation (%) | 62 | 0.54 | 0.54 | 0.54 | 0.54 | 0.54 | - |
| Materials cost growth rate (%) | 38 | 0 | 0 | 0 | 0 | 0 | - |
| Weighted annual real input growth rate (%) | - | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | - |
| Input growth escalation included in the draft decision operating expenditure forecast for AA5 ($ million real as at 31 December 2019)* | - | 0.51 | 0.68 | 0.86 | 1.05 | 1.23 | **4.33** |

** The input growth escalation also applied an input growth escalation to the efficient base year amount of network, corporate and IT costs to account for input growth escalation between 2017 and 2019.*

Source: ERA, *Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024*, 18 April 2019, p. 73, Table 36.

### *Productivity adjustment*

342. ATCO did not apply a productivity growth adjustment to its operating expenditure forecast because it considered that it was already operating efficiently. ATCO cited its performance relative to its peers according to the benchmarking it supplied (described in paragraph 275) to support this claim and also presented other data showing that its productivity had been flat over the past 17 years.[163]

343. Synergy did not agree with ATCO's submission that no productivity growth adjustment should be included in its operating expenditure forecast for AA5.[164] Similarly, Kleenheat questioned the reasonableness of not including a productivity adjustment in ATCO's operating expenditure forecasts.[165]

344. The draft decision operating expenditure forecast did not include a productivity adjustment as the ERA did not forecast that the scale of ATCO's operations would increase over AA5. The ERA forecast that both ATCO's total connections numbers and gas throughput would decrease over AA5 and concluded that it was unlikely that ATCO would improve its operating expenditure productivity over AA5 due to increasing economies of scale. Similarly, the ERA considered it unlikely that ATCO would improve its operating expenditure productivity over AA5 due to technological developments. Most of ATCO's proposed capital expenditure for AA5 was for

[163] Economic Insights, *The productivity performance of ATCO Gas' Western Australian Gas Distribution System*, 16 July 2018.

[164] Synergy, *Response to Issues Paper on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024*, 14 November 2018, p. 7.

[165] Kleenheat, *Kleenheat submissions on the proposed revised access arrangement for Mid-West to South-West Gas Distribution Systems (GDS)*, 13 November 2018, p. 2.

network sustaining and network growth projects and structures and equipment, rather than strategic projects to enhance the productivity and efficiency of its operations or reduce ATCO's operating cost structure.

### *Ancillary services operating expenditure*

345. ATCO's initial proposal for ancillary services operating expenditure was distributed over AA5 as shown in Table 49.

**Table 49: ATCO's initial proposal for ancillary services operating expenditure for AA5 ($ million real as at 31 December 2019)**

| | 2020 | 2021 | 2022 | 2023 | 2024 | AA5 total |
|---|---|---|---|---|---|---|
| Total proposed ancillary services operating expenditure | 2.83 | 2.88 | 2.93 | 2.97 | 3.02 | **14.64** |

Source: ATCO Gas Australia, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 74, Table 11.2.

346. The ERA concluded that the forecast unit rates for ancillary services proposed by ATCO were efficient in comparison with ATCO's historical costs for ancillary services. ATCO's proposed forecast unit costs for ancillary services were close to its current costs for most of the services except for special meter reads. Based on this, the proposed unit rates for ancillary services were considered to represent the best estimate possible in the circumstances, in line with NGR rule 74(2)(b), and were applied in calculating the ancillary services costs in the draft decision operating expenditure forecast.

347. Kleenheat considered that ATCO's proposed pricing for the special meter reads was inconsistent with that of an efficient operator, given that ATCO's proposed meter reading cost was the second most expensive within Kleenheat's sample, with the average cost from that sample being 23 per cent cheaper than ATCO.[166] The ERA observed that ATCO's forecast unit cost ($12.82) for the special meter reads was substantially below the unit cost in AA4 ($18.67) and on this basis was satisfied that the proposed AA5 pricing of this service factored in a gain in efficiency.

348. The ERA concluded that its draft decision forecast volumes for ancillary services (shown in paragraph 139) were the best forecast possible for ancillary services volumes, as required by rule 74(2)(b), and therefore these volumes were applied to calculate the ancillary services operating expenditure included in the draft decision operating expenditure forecast.

349. Table 50 shows the ancillary services operating expenditure included in the draft decision operating expenditure forecast for AA5.

[166] Kleenheat, *Kleenheat submissions on the proposed revised access arrangement for Mid-West to South-West Gas Distribution Systems (GDS)*, 13 November 2018, p. 4.

**Table 50: Draft decision - Ancillary services operating expenditure included in the draft decision operating expenditure forecast for AA5 ($ million real as at 31 December 2019)**

| | 2020 | 2021 | 2022 | 2023 | 2024 | AA5 total |
|---|---|---|---|---|---|---|
| Applying a meter lock | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **2.32** |
| Removing a meter lock | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **1.16** |
| Deregistering a delivery point | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **1.78** |
| Disconnecting a delivery point | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **1.95** |
| Reconnecting a delivery point | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **2.15** |
| Special meter reading | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **7.75** |
| Ancillary services operating expenditure included in the draft decision operating expenditure forecast | 3.46 | 3.44 | 3.42 | 3.40 | 3.39 | **17.11** |

Source: ERA, *Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024*, 18 April 2019, p. 75, Table 38.

### *UAFG operating expenditure*

350. ATCO's initial proposal for UAFG operating expenditure was distributed over AA5 as shown in Table 51.

**Table 51 ATCO's initial proposal for UAFG operating expenditure for AA5 ($ million real as at 31 December 2019)**

| | 2020 | 2021 | 2022 | 2023 | 2024 | AA5 total |
|---|---|---|---|---|---|---|
| Total proposed UAFG operating expenditure | 6.30 | 6.25 | 6.07 | 5.90 | 5.80 | **30.32** |

Source: ATCO Gas Australia, *2020-24 Plan (Access Arrangement Information),* 31 August 2018, p. 74, Table 11.2.

351. The ERA considered that applying a UAFG unit price as determined through a competitive tender was consistent with good industry practice and rule 91 of the NGR. For the purposes of the draft decision, the ERA used the placeholder value of the UAFG unit price proposed by ATCO and stated that it would apply the unit price from the competitive tender conducted by ATCO when this became available.

352. While ATCO's forecast UAFG rates in its initial proposal reflected only a small reduction over AA5, the rates were in line with other gas distribution service providers and were therefore considered to be in line with good industry practice and the UAFG costs that would be incurred by a prudent service provider acting efficiently, as required by NGR rule 91. The UAFG rates proposed by ATCO were therefore applied in calculating the UAFG costs included in the draft decision operating expenditure forecast.

353. The ERA's draft decision forecast throughput, shown in paragraph 133, was considered to be the best forecast possible for gas throughput, as required by rule 74(2)(b). This throughput forecast was therefore applied to calculate the UAFG operating expenditure included in the draft decision operating expenditure forecast.

354. Table 52 shows the UAFG operating expenditure included in the draft decision AA5 operating expenditure forecast based on the inputs outlined in paragraphs 352 to 353.

**Table 52 Draft decision - UAFG operating expenditure included in the draft decision operating expenditure forecast for AA5 (units specified by row)**

| | 2020 | 2021 | 2022 | 2023 | 2024 | AA5 total |
|---|---|---|---|---|---|---|
| UAFG rate (%) | 2.55 | 2.52 | 2.50 | 2.48 | 2.46 | - |
| Total throughput (TJ) | 24,776 | 24,771 | 24,064 | 23,399 | 22,991 | **120,001** |
| UAFG operating expenditure included in the revised operating expenditure forecast ($ million real as at 31 December 2019) | 6.26 | 6.19 | 5.96 | 5.75 | 5.60 | **29.76** |

Source: ERA, *Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024*, 18 April 2019, p. 76, Table 40.

## *ATCO's response to the draft decision*

355. ATCO's revised proposal was for an operating expenditure forecast of $345.09 million, as shown in Table 53.[167]

**Table 53 ATCO's revised operating expenditure forecast ($ million real as at 31 December 2019)**

| | 2020 | 2021 | 2022 | 2023 | 2024 | AA5 total |
|---|---|---|---|---|---|---|
| Base year | 54.80 | 54.80 | 54.80 | 54.80 | 54.80 | **274.00** |
| Recurrent step changes | 0.70 | 0.94 | 1.13 | 1.23 | 1.23 | **5.23** |
| Non-recurrent step changes | 0.52 | 0.56 | 1.65 | 1.94 | 1.27 | **5.94** |
| Output growth escalation | 1.20 | 1.63 | 2.13 | 2.66 | 3.20 | **10.82** |
| Input growth escalation | 1.08 | 1.61 | 2.19 | 2.75 | 3.27 | **10.90** |
| UAFG costs | 3.76 | 4.43 | 4.45 | 4.50 | 4.64 | **21.78** |
| Ancillary services costs | 3.20 | 3.24 | 3.28 | 3.33 | 3.38 | **16.43** |
| **Total** | **65.26** | **67.20** | **69.63** | **71.21** | **71.79** | **345.09** |

Source: ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information),* 12 June 2019, Table 9.28, p. 126.

356. ATCO's revised operating expenditure forecast was 3.43 per cent lower than the initial proposal ($357.36 million). ATCO's revised operating expenditure forecast for

[167] Real dollars as at 31 December 2019.

AA5 and its initial forecast, and the draft decision operating expenditure forecast are shown in Table 54.

**Table 54 ATCO's revised and initial proposed operating expenditure forecasts and the draft decision operating expenditure forecast ($ million real as at 31 December 2019)**

| | Revised ATCO proposal | Initial ATCO proposal | Draft decision |
|---|---|---|---|
| Base year | 274.00 | 273.76 | 251.74 |
| Recurrent step changes | 5.23 | 8.53 | 2.51 |
| Non-recurrent step changes | 5.94 | 8.06 | 5.34 |
| Output growth escalation | 10.82 | 13.04 | 6.02 |
| Input growth escalation | 10.90 | 9.02 | 4.33 |
| UAFG costs | 21.78 | 30.31 | 29.76 |
| Ancillary services costs | 16.43 | 14.64 | 17.11 |
| **Total** | **345.09** | **357.36** | **316.81** |

Source: ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 126, Table 9.28; ATCO Gas Australia, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 75, Table 11.3; ERA, *Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024*, 18 April 2019, p. 77, Table 41.

357. ATCO's revised operating expenditure forecast was derived using the base-step-trend method for network, corporate and information technology (IT) operating expenditure and specific forecasts for UAFG and ancillary services. This is the same approach as ATCO used to derive its initial operating expenditure forecast. However, some of the assumptions applied by ATCO for the revised forecast differed from the assumptions ATCO applied for the initial forecast. One assumption which changed was that the revised forecast used ATCO's 2018 operating expenditure as the base year for network, corporate and IT costs. The full assumptions applied by ATCO to derive the revised forecast are outlined in paragraphs 361 to 440 below.

358. ATCO's revised proposal also presented a bottom-up operating expenditure forecast for AA5, shown in Table 55 below. The revised bottom-up operating expenditure forecast for AA5 totals $345.0 million, which is $19.2 million less than the bottom-up forecast of $364.2 million presented in the initial proposal.

**Table 55 ATCO's revised bottom-up operating expenditure forecast for AA5 ($ million real as at 31 December 2019)**

| | 2020 | 2021 | 2022 | 2023 | 2024 | AA5 total |
|---|---|---|---|---|---|---|
| Network operating expenditure | 35.0 | 35.3 | 36.3 | 36.3 | 36.8 | 179.7 |
| Corporate operating expenditure | 17.2 | 17.2 | 17.4 | 19.0 | 18.9 | 89.7 |
| IT operating expenditure | 7.0 | 7.0 | 8.5 | 7.4 | 7.5 | 37.4 |
| UAFG operating expenditure | 3.8 | 4.4 | 4.4 | 4.5 | 4.6 | 21.8 |
| Ancillary services operating expenditure | 3.2 | 3.2 | 3.3 | 3.3 | 3.4 | 16.4 |
| **Total operating expenditure** | **66.1** | **67.1** | **70.0** | **70.6** | **71.2** | **345.0** |

Source: ATCO Gas Australia, response to information request ERA 22, 11 September 2019.

359. The bottom-up forecast shown in Table 55 and the base year financials applied by ATCO as the starting point for the revised base-step-trend forecast reflect a new IT cost reporting method implemented by ATCO from 2018. In 2018, ATCO's method of reporting IT costs changed. In previous years, all IT operating expenditure was charged to an IT cost centre. During 2018, IT cost centre reporting costs were allocated to other operating expenditure cost centres. ATCO advised that it made this change so that the costs in each cost centre would better reflect their full operating costs, including IT costs. The change in ATCO's method of reporting IT costs resulted in a transfer of costs out of the IT category in 2018 to other categories of operating expenditure including network and corporate operating expenditure.

360. One change which significantly contributed to the difference between the revised operating expenditure forecast and the initial forecast was UAFG costs. As stated in paragraph 351, for the purpose of the initial operating expenditure forecast ATCO used a placeholder UAFG price, noting that it would apply the UAFG unit price determined through a competitive tender for its revised forecast. In the draft decision the ERA accepted that applying a UAFG unit price determined through a competitive tender to acquire UAFG was consistent with good industry practice and rule 91 of the NGR. Since the initial proposal, ATCO has completed its UAFG tender and the tender resulted in a price reduction for UAFG. ATCO's revised operating expenditure forecast included $21.78 million of UAFG costs, which was 28.16 per cent lower than the UAFG costs included in ATCO's initial forecast ($30.31 million). This difference was a result of applying the UAFG price determined through the competitive tender which was lower than the placeholder price applied for the initial proposal. The decrease in UAFG costs due to the lower UAFG price applied in the revised proposal was offset somewhat by a higher forecast UAFG volume than was applied for the initial forecast. The assumptions for the UAFG forecast applied for ATCO's revised proposal are discussed in more detail in paragraphs 438 to 440.

### *Selection of the most appropriate base year*

361. ATCO accepted the ERA's conclusion in the draft decision that the use of forecast 2019 operating expenditure as the base year for the base-step-trend forecast of ATCO's AA5 network, corporate and IT costs did not yield the best forecast or estimate possible in the circumstances.[168]

[168] ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 96.

362. However, ATCO disagreed with the use of 2017 as the base year for the revised operating expenditure forecast, as applied in the draft decision, given that ATCO's 2018 actual operating expenditure results were available.

363. ATCO's revised proposal used 2018 as the base year for the base-step-trend forecast of ATCO's AA5 network, corporate and IT costs. ATCO considered that 2018 was more representative of its ongoing costs for the years in AA5 given 2018 was the most recent financial year for which actual financial data were available. ATCO further stated that several changes occurred in 2018 which caused the operating expenditure incurred by ATCO to fluctuate across various categories, including:

- ATCO introducing time-sheeting from 1 January 2018 for office staff and field supervisors that resulted in more accurate cost allocation to reference services.
- The method of reporting IT costs changed in 2018, and so costs that would previously have been reported in the IT cost category were included in other categories of operating expenditure, including network and corporate operating expenditure.

### *Adjustments to derive efficient base year network, corporate and IT operating expenditure*

364. ATCO's revised proposal applied adjustments to the 2018 base year amounts of network, corporate and IT operating expenditure to account for anticipated differences between the base year and the AA5 years. These adjustments are shown in Table 56 and outlined in paragraphs 365 to 368.

**Table 56 ATCO's revised operating expenditure forecast - Calculation of efficient base year network, corporate and IT operating expenditure ($ million real as at 31 December 2019)**

| | Line item/adjustment |
|---|---|
| 2018 network, corporate and IT operating expenditure | 57.00 |
| Adjustments | |
| Access arrangement five regulatory preparation | -1.81 |
| Non-recurrent portion of operations projects and variable volume works | -0.20 |
| Non-recurrent portion of pipeline inspection costs | -0.18 |
| Total adjustments | -2.19 |
| Efficient base year network, corporate and IT operating expenditure | 54.80 |

Source: ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information),* 12 June 2019, p. 111, Table 9.13; ATCO Gas Australia, *response to information request ERA 22*, 11 September 2019.

365. ATCO stated that it incurred operating expenditure of $1.81 million in 2018 for the preparation of its revised AA5 submission. As these costs are non-recurrent, ATCO subtracted $1.81 million from its network, corporate and IT operating expenditure to derive its efficient base year network, corporate and IT operating expenditure.

366. ATCO stated that it incurred non-recurrent operating expenditure of $0.20 million for operations projects and variable volume works in 2018, comprising:

- $0.1 million for “smell-of-gas” incident costs. The number of smell-of-gas activities performed by ATCO in 2018 was higher than average in 2018, with the costs of these activities in 2018 exceeding the costs for these activities incurred in 2017 by $0.2 million due to annual seasonal variations dependent on weather conditions. The number of smell-of-gas activities performed by ATCO in 2017 however was lower than average. ATCO determined that $0.1 million of the increase in smell-of-gas incident costs in 2018 was non-recurrent expenditure.
- $0.1 million for additional incident expenditure. In 2018 there were two major incidents on ATCO’s network, as well as minor incidents. ATCO’s incident expenditure for 2018 was $0.2 million higher than in 2017, which reflected in part that the number of incidents in 2017 was unusually low (no major incidents were recorded). Based on historical experience, ATCO forecasts operating expenditure for one major incident per year and therefore $0.1 million of the incident expenditure incurred in 2018 was considered to be non-recurrent expenditure.

367. As the above costs are non-recurrent, ATCO subtracted $0.2 million from its network, corporate and IT operating expenditure to derive its efficient base year network, corporate and IT operating expenditure.

368. ATCO stated that it did not undertake any pipeline inspection activities in 2017, while in 2018 it incurred [redacted] million for a single pipeline inspection project. This project included inline inspection operations, post-inspection works, remediation activities and reporting and documentation of findings for ATCO’s pipeline integrity management plan. The cost incurred in 2018 was comprised of $0.18 million for [redacted] that ATCO expected would not recur for future inspection activities. Consequently, ATCO considered that [redacted] million of the total incurred cost of [redacted] million should be included in the 2018 base year and adjusted the base year by subtracting $0.18 million to reflect the portion of pipeline inline inspection costs it expected would not be recurrent.

***Differences between 2017 and 2018***

369. ATCO has addressed differences between the operating expenditure it incurred in 2017 and 2018. In 2017, ATCO incurred $53.55 million of network, corporate and IT operating expenditure, which is $3.44 million less than what ATCO incurred in 2018.[169] The difference comprised the following:[170]

- Operations projects and variable volume works – ATCO incurred $0.85 million more for operations projects and variable volume works in 2018 than it incurred in 2017.
- Pipeline inline inspections - ATCO incurred $[redacted] million more for pipeline inline inspections in 2018 than it incurred in 2017.
- IT costs – ATCO incurred $0.72 million less for IT costs in 2018 than it incurred in 2017.

[169] All figures are $ real as at 31 December 2019.

[170] ATCO response to information request EMCa 55, 25 September 2019; ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, pp. 96-111.

- Business development and marketing - ATCO incurred $0.47 million less for business development and marketing costs in 2018 than it incurred in 2017.
- Corporate support costs – ATCO incurred $0.35 million more for business development and marketing costs in 2018 than it incurred in 2017.
- Employee short-term incentive payments - ATCO incurred $0.69 million more for employee short-term incentive payments in 2018 than it incurred in 2017.
- AA5 regulatory preparation costs – ATCO incurred regulatory preparation costs of $1.81 million in 2018 whereas it incurred none in 2017.
- Licence fees – ATCO incurred $0.23 million more in licence fees in 2018 than it incurred in 2017.

370. These differences are outlined in paragraphs 371 to 390.

371. ATCO stated that the $0.85 million increase in operating expenditure for operations projects and variable volume works in 2018 comprised the following:[171]

- Leak surveys increased by $0.2 million due to resource increases to accommodate additional leak surveys on network replacement activity. This included 80 additional high risk locations due to classification changes and costs associated with training resources for the expanded 2019 High Density Community Use areas. This level of activity and cost is required on an ongoing basis.
- Pipeline patrol costs increased by $0.1 million because ATCO introduced a step change in the frequency of pipeline patrols in the Perth Metro, Bunbury and Busselton locations in response to urban encroachment of greater than 10% on these pipelines, as defined in AST GL0001. This cost is recurrent in nature.
- The cost of "smell of gas" activities increased by $0.2 million in 2018 due to annual seasonal variations dependent on weather conditions. The number of activities were higher than average in 2018 and lower than average in 2017. Using the average cost from 2015 to 2018 as the basis for this task, ATCO has determined that $0.1 million of the increase is recurring expenditure and $0.1 million is non-recurring.
- In 2018 there were two major incidents [redacted] as well as minor incidents. Given the extent of these activities and the fact that 2017 was unusually low and did not record any major incidents, costs were higher than 2017 by $0.2 million. Based on historical experience, ATCO forecasts opex for one major incident per year and therefore $0.1 million is treated as non-recurring opex.

372. As stated in paragraph 366, ATCO has reduced its base year by $0.20 million to adjust for the components of operations and variable volume works operating expenditure that it considered would be non-recurrent during AA5.

373. ATCO stated that the $[redacted] million increase in operating expenditure for pipeline inline inspection costs in 2018 was due to a single project. This cost included inline inspection operations, post-inspection works, remediation activities and reporting and documentation of findings to be utilised in ATCO's pipeline integrity management plan. ATCO has scheduled major pipeline inspections for each year of AA5. As stated in paragraph 368, ATCO has reduced its base year by $0.18 million to adjust for the component of pipeline inspections costs that it incurred during 2018 that it considered would be non-recurrent during AA5.

[171] ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, pp. 96-97. The figures in the bulleted list do not add to $0.85 million due to rounding applied in the quoted text.

374. ATCO's revised proposal stated that the 2018 base year applied for its revised operating expenditure forecast included IT costs of $9.00 million, which was $0.72 million less than it incurred in 2017. As stated in paragraph 316, the draft decision operating expenditure forecast included an adjustment to the base year (2017) IT expense which reduced the amount of IT costs included in the efficient base year from the actual amount incurred by ATCO in 2017 to the average actual amount incurred by ATCO between 2015 and 2017 ($9.00 million). Given that ATCO incurred IT costs of $9.00 million in 2018 ATCO considered that the 2018 base year did not require adjustment for IT costs. ATCO accepted the ERA's view that its 2017 IT costs were anomalously high and that $9.00 million was more representative of a recurrent level of annual expenditure.

375. ATCO stated that the 2018 base year included $3.2 million in operating expenditure for business development and marketing activities, which was $0.47 million less than what it incurred in 2017. ATCO accepted the ERA's view in the draft decision that ATCO's business development and marketing costs in 2017 were anomalously high compared to the business development and marketing costs it incurred in 2015 ($1.37 million) and 2016 ($2.42 million) however considers that the $3.2 million of business development and marketing operating expenditure included in the 2018 base year does not require adjustment.

376. ATCO submitted that the reduction in business development and marketing costs in 2018 reflected the following:[172]

> **Marketing:**
>
> - Reducing expenditure on above-the-line and below-the-line marketing expenditure, e.g. social media, digital forms, awareness and cut-through programs, marketing collateral and digital portals.
> - Removing one-off costs that occurred in 2017 in setting up economic and emissions models for our 'benefits of gas' website and marketing campaigns (e.g. Better Add Gas) that now require lower costs to maintain and upkeep.
> - Realignment of BD related operational costs that were allocated to Marketing as part of the 2020-24 Plan, however, are BD related. These costs will be evident when comparing AA4 BD activities to AA5 BD activities.
>
> **Business development:**
>
> - Remove activities associated with biogas blending with natural gas as a fuel source.
> - Remove expenditure relating to gas powered on-site generation for fast charging EV charging stations.

377. ATCO stated that its revised proposed business development and marketing operating expenditure covered the activities shown in Table 57.

[172] ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 108.

**Table 57 Activities covered by the business development and marketing expenditure included in ATCO's revised operating expenditure forecast**

| Business development and marketing work item | Activities |
|---|---|
| New connections including infill program and homebuyer engagement | Scoping, analysis and support to facilitate developers, builders and gas customers to connect to the network.<br>Preparation of customer driven business cases.<br>Online customer connection portals.<br>Online customer education tools.<br>External content for education including case studies, content and engagement. |
| Capital contributions | Customer energy modelling for completion of NGR 79(2)(b) analysis on behalf of the customer.<br>Providing information and preparation of internal documentation to facilitate process.<br>External content for education including case studies, content and engagement. |
| Community and stakeholder engagement | Engagement with community for operational activities.<br>Use of communications platforms for keeping customers and stakeholders informed of network and related items.<br>Diversity programs relating to suppliers, employment, building of relationships with traditional owners and staff education.<br>Equipment loaner program.<br>ATCO communities fund. |
| Gas safety campaigns | Informative gas safety information campaigns across various channels including online and print for the community. |
| Internal and external communications | Internal intranet, newsletters and emails.<br>Media, social media, and direct mail to gas customers.<br>Use of communications platforms for keeping customers and stakeholders informed of network and related items. |
| Gas market research, industry support and sales tools | Market research studies.<br>Online energy mix savings calculator. |

Source: ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information),* p. 107, Table 9.11.

378. ATCO's revised proposal disagreed with the ERA's view stated in the draft decision that ATCO's 2017 business development and marketing expense was anomalously high compared to historical levels and that it was unsupported that the level of expense incurred in 2017 would recur on an ongoing basis during AA5. ATCO considered that there had been a sufficient shift in its operating environment that warranted business development and marketing expenditure above historical levels. ATCO stated that it was facing increasing market forces that are affecting levels of gas consumption and new connections including:[173]

[173] ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p.100.

- The use of electric induction cooktops in place of natural gas appliances.
- Reduction in reverse cycle air conditioning equipment costs had the effect of supplanting gas heating.
- Smaller home sizes due to smaller lot sizes due to rezoning or new estates.
- Land developers releasing land lots further from the abutting gas network due to cheaper land procurement and sale prices and not providing natural gas connections due to headworks capital costs.
- A perception that natural gas is "less green" in Western Australia than procuring electricity from the grid.

379. Additionally, ATCO stated that effective customer engagement and social responsibility were now considered normal practice for businesses, and consequently ATCO had sought to continue to educate customers on the safety and benefits of natural gas. ATCO stated that the scale of the factors it cited as driving an increase in business development and marketing costs had increased from the AA4 period and the implications for its customers were considerable. ATCO stated that this underscored the need for increased education about gas for new and existing customers and the community. Additionally, ATCO stated that it needed to address misinformation in the Western Australian gas market due to confusion over whether the challenges in the east coast gas market also applied in Western Australia. ATCO stated that failure to educate and engage the market and customers through business development and marketing activities would lead to a cycle of lower use driving higher prices and more customers switching to alternative energy sources, ultimately increasing the costs to operate the gas network.

380. ATCO's revised proposal responded to the ERA's draft decision view that the business development and marketing expenditure included in ATCO's initial operating expenditure forecast could not be justified by the benefit it would provide to consumers. ATCO rejects this view and stated that its business development and marketing activities were focused on offering customers choice in terms of an alternate energy source and energy solutions that had a lower carbon footprint. Additionally, ATCO states that its business development and marketing activities resulted in cost saving benefits to new and existing customers. ATCO cites the following business development and marketing activities which it considers increases connections and throughput and improves operation of the network:[174]

    - As new customers are connected to the network, existing customers benefit due to the spread of tariffs across more customers.
    - As existing customers are introduced to technology to increase throughput this leads to lower tariffs.
    - Network operational activities require stakeholder and customer engagement to provide information about works that may affect them or their natural gas supply.

381. ATCO's revised proposal provided several examples of the activities that would be supported by the business development and marketing expenditure included in its revised operating expenditure forecast and the benefits of those activities for customers.[175] ATCO considered that these examples and projects were consistent with good industry practice and provided reasonable justification for including the

[174] ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p.101.

[175] The full list of examples is presented in ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 101, Table 9.10.

proposed $3.2 million of business development and marketing expenditure in the 2018 base year.

382. ATCO submitted that its corporate support costs increased by $0.35 million in 2018 due to the following additional reporting and compliance obligations that became effective in 2018:[176]

- Several legislative changes from July 2017 for significant global entities which caused an increase in tax accounting costs of approximately one full-time employee. These legislative changes require ATCO to provide information for the new country-by-country reporting to the head entity of its tax consolidated group. The legislation also introduced significantly higher penalties for late lodgement and as a result ATCO has enhanced its governance framework for compliance reporting. ATCO stated that the increased tax accounting costs ensured that it avoided the higher penalties for non-compliance and therefore reduced potential costs to customers.
- New international accounting standards applicable to ATCO from 1 January 2018 which caused an increase in technical accounting costs of approximately 0.5 full-time employees. ATCO stated that these new accounting standards required additional analysis to be completed on all revenue contracts and ongoing analysis of the new expected credit losses measurement of impairment. ATCO also stated that further new accounting standards effective from January 2019 would require additional analysis of expenditure contracts to determine if they contained a lease. ATCO stated that the increased technical accounting costs ensured that it met its reporting obligations under the accounting standards and therefore reduced potential costs to customers due to penalties imposed by regulatory authorities.

383. ATCO considers that the increased corporate support costs it incurred in 2018 would be recurrent during AA5 and therefore has not adjusted the 2018 base year for any portion of the increase.

384. ATCO incurred $0.69 million more in operating expenditure in 2018 for employee short-term incentive payments in 2018 than it incurred in 2017. ATCO considers that the amount of short-term incentive payments it incurred during 2018, including the increase, reflects an efficient amount and therefore has not adjusted the 2018 base year for any portion of the short-term incentive payments incurred.

385. As stated in paragraphs 277 and 313, the draft decision operating expenditure forecast subtracted $0.66 million of short-term incentive payments from the 2017 base year operating expenditure to derive the efficient base year network, corporate and IT operating expenditure.[177] The draft decision assumed that the estimated 2017 base year amount calculated by ATCO included the actual amount of short-term employee incentive payments paid by in 2017, comprising the provisioned amount ($0.96 million) and the amount paid in excess of the provisioned amount ($0.66 million).[178]

386. ATCO subsequently clarified that the base year network, corporate and IT operating expenditure applied in its initial proposal only included the provisioned amount for

[176] ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, 31 August 2018, p. 98.

[177] Real dollars as at 31 December 2019.

[178] ERA, *Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024*, 18 April 2019, paragraph 164.

short-term employee incentive payments ($0.96 million).[179] ATCO's revised proposal does not accept the ERA's view that the provisioned amount of $0.96 million was an efficient amount for annual employee incentive payments and ATCO considers that the ongoing cost of staff incentives should be based on the actual cost for the following reasons:[180]

- The provisioned amount of short-term incentive payments was an estimate and there was no logical basis for selecting this amount because it did not represent the actual costs incurred or a reasonable or best forecast of the recurring cost over AA5.
- EMCa's view that ATCO should pay bonuses from the outperformance cost reductions implied that the business would only pay staff incentives if there was outperformance. ATCO does not agree with this view because ATCO incentivises staff to achieve forecast expenditure levels before any outperformance is achieved and forecast expenditure, including staff incentives, to cover this. ATCO says, if outperformance is achieved, additional bonuses may be paid out of outperformance, but this is separate to the base level staff incentive expenditure.

387. ATCO says that it did not make annual incentive payments in 2015 and 2016 due to employment market conditions in those years and the uncertainty created by the AA4 process and delayed outcome of the AA4 final decision. After the outcome of the AA4 final decision in July 2016, it resumed annual short-term incentive plan payments in 2017, and ATCO therefore considers that its staff incentive costs in 2015 and 2016 should not be used as a point of reference for establishing its efficient annual incentive payments because 2015 and 2016 were not comparable to other years.

388. ATCO says that its internal testing processes for staff incentives demonstrated that its basis for determining short-term incentive payments was reasonable and within industry data ranges. It detailed that its staff incentives were calculated based on three inputs (base salary, short-term incentive payment percentages and short-term incentive payment rates) and each of those input factors were tested against external references and industry data. It cited the following data which it considered supported its conclusion that its basis for determining short-term incentive payments was reasonable:[181]

- [redacted]

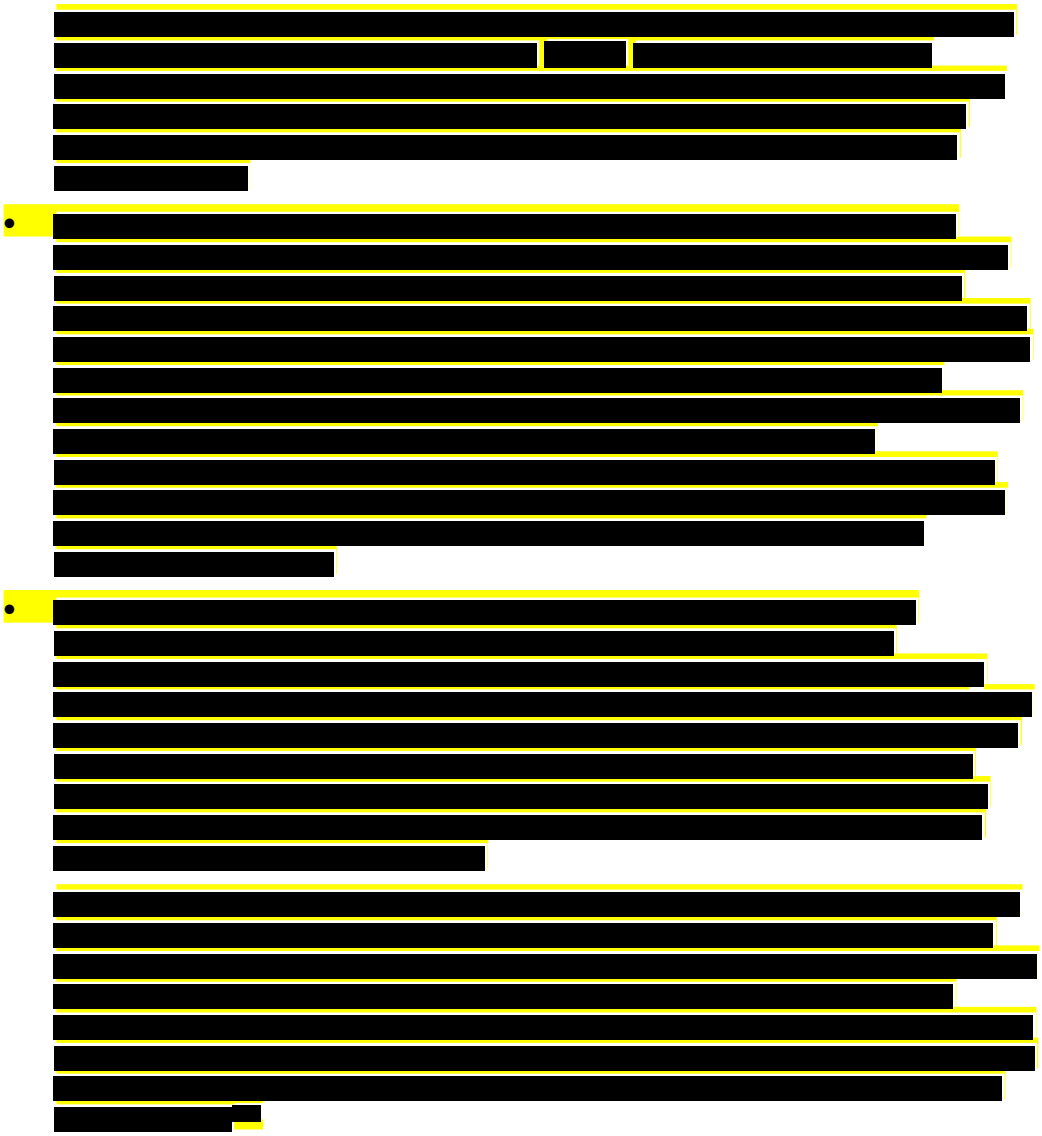
179 ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 109.

180 ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 109.

181 ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 109-110.

182 ATCO Salary Report March 2018.

183 Average weekly ordinary time cash earnings in the public and private sector for Western Australia at May 2018 as reported in the Australian Bureau of Statistics 6302.0 Average Weekly Earnings, Table 16 November 2018.



389. As stated in paragraph 365, ATCO's actual costs in 2018 for preparation of its revised AA5 submission were $1.81 million. These costs were not incurred during 2017. As these costs are non-recurrent, ATCO subtracted $1.81 million from its 2018 operating expenditure to derive its efficient base year forecast.

390. ATCO outlined that the $0.23 million increase in licence fees in 2018 was due to increases in licence fees and other minor charges charged by the ERA and other government agencies.

***ATCO's proposed step changes for recurrent network, corporate and IT operating expenditure***

391. ATCO proposed $5.14 million of recurrent step changes in operating expenditure over AA5 in its revised proposal. These are shown in Table 58.

184 Average weekly ordinary time cash earnings in the public and private sector for Electricity, Gas, Water and Waste Services at May 2018 as reported in the Australian Bureau of Statistics 6302.0 Average Weekly Earnings, Table 17 November 2018.

185 ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, pp. 109-110.

**Table 58 ATCO's revised operating expenditure forecast - Recurrent operating expenditure step changes ($ million real as at 31 December 2019)**

| Recurrent step change | 2020 | 2021 | 2022 | 2023 | 2024 | AA5 total |
|---|---|---|---|---|---|---|
| Additional leak survey | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **2.96** |
| New interconnections | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **0.87** |
| Supervisory control and enhanced data acquisition | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **0.82** |
| Security of supply - Pipeline patrol | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **0.48** |
| **Total** | **0.69** | **0.92** | **1.11** | **1.21** | **1.21** | **5.14** |

*Some numbers may not add due to rounding.*

Source: ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information), 12 June 2019,* p. 114, Table 9.15.

392. As stated in paragraph 318, the ERA included 50 per cent ($2.51 million) of the step change for additional leak survey and repair activities initially proposed by ATCO in the draft decision operating expenditure forecast.[186]

393. In the revised proposal, ATCO stated that it refined the scope of the leak survey activity and the cost estimate for this work and on this basis proposed a step change of $2.96 million for the additional leak survey and repair activities. ATCO supplied an updated project brief, which included a cost breakdown, to support the revised proposed step change.[187]

394. ATCO's revised proposal stated that the additional leak survey and repair activities covered by the proposed step change for AA5 were:

- Gas meter positions at properties in city centre areas – Mains in a number of city centre areas were surveyed annually and formal safety assessments conducted by ATCO determined that the risk of leaks from meter positions in high density community use areas was 'High', resulting in the need for additional meter positions to be annually surveyed in city centre areas.
- Gas mains and meter positions around additional locations – ATCO stated that a revision to the standard AS/NZS 4645 resulted in a clear definition of what is considered as a high density community use location.[188] ATCO's formal safety assessments determined that the gas mains in the vicinity of a number of additional newly defined high density community use areas will require annual leak survey resulting in additional kilometres of mains requiring leak surveys. The meter positions at high density community use locations will also need to be leak surveyed in the same manner as required for city centre areas.

[186] Real dollars as at 31 December 2019.

[187] ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information), Attachment 9.103 Project Brief: AA5 Leak Survey and Repair,* 12 June 2019.

[188] ATCO defines high density community use locations as locations including areas where buildings of four or more storeys are prevalent, major shopping centres, schools, hospitals, aged care facilities and major sporting and cultural facilities. Public infrastructure (e.g. roads and railways, trafficable tunnels) in direct proximity of the high density community use area is also deemed to be part of the high density community use area.

- Major services – The formal safety assessment conducted by ATCO determined that the previous definition of major services did not sufficiently capture all assets of concern. A number of kilometres of pipe that had previously been classified as a "service" was identified to be no different to a gas main and was therefore included in the definition of a major service as defined in ATCO's safety case. As a consequence, these major services will need to be leak surveyed once every five years going forward.
- Gas meter positions in older residential areas with polyvinyl chloride services – ATCO undertook a trial to better understand the risk arising from leaks at meter positions from mechanical fittings that historically are known to leak. The trial identified a leak rate of up to five per cent in some older polyvinyl chloride networks, which ATCO states aligns with their assessment of this risk as being intermediate. ATCO therefore proposes new activity covered by the step change for additional leak survey and repair activities which includes leak surveying of additional meter positions over five years in suburbs with older polyvinyl chloride networks. ATCO identified the suburbs where these meter positions are located using its mains replacement prioritisation tool, which provides a risk driven targeted leak survey program for meter positions in older polyvinyl chloride networks.

395. As stated in paragraph 319, the ERA did not include the $1.19 million step change for new interconnections initially proposed by ATCO in the draft decision operating expenditure forecast. This was because the proposed operating expenditure step change for new interconnections was linked to the capital expenditure proposed in the initial proposal for construction of new offtake facilities described in paragraphs 939 to 941. Given the ERA concluded in the draft decision that the proposed capital expenditure did not satisfy rule 79 of the NGR, the ERA considered that the associated operating expenditure would not be incurred by a prudent service provider acting efficiently and in accordance with accepted good industry practice and therefore did not satisfy rule 91 of the NGR. ATCO did not accept the ERA's draft decision regarding the proposed capital expenditure for interconnections during AA5 and similarly has not accepted the draft decision regarding the associated proposed operating expenditure step change.

396. ATCO's revised proposal included proposed capital expenditure of $14.87 million for the construction of new offtake facilities, which was higher than the initial proposed capital expenditure of $13.5 million for this project. This proposed capital expenditure is described in paragraphs 1198 to 1213. The revised proposal included a proposed operating expenditure step change of $0.87 million for the operating expenditure linked to the revised proposed capital expenditure for the construction of new offtake facilities. The revised proposed step change for the new interconnections was based on estimated annual operating expenditure of $[redacted] million for each site.

397. As stated in paragraph 320, the ERA did not include the $2.32 million step change for installation of supervisory control and data acquisition (SCADA) assets initially proposed by ATCO in the draft decision operating expenditure forecast. This was because the proposed operating expenditure step change for the installation of these assets was linked to the capital expenditure proposed in the initial proposal for the acquisition of these assets (described in paragraphs 919 to 933). Given that the ERA concluded that the proposed capital expenditure did not satisfy rule 79 of the NGR, the ERA considered that the associated operating expenditure would not be incurred by a prudent service provider acting efficiently and in accordance with accepted good industry practice and therefore did not satisfy rule 91 of the NGR. The capital expenditure for the SCADA assets in ATCO's initial proposal covered three programs

of work, which it subsequently split into five discrete business cases in the revised proposal.[189] ATCO's revised proposal clarified that the proposed operating expenditure step change for SCADA activities was related to just one of these business cases, being the automated network pressure control project outlined in paragraphs 1159 to 1164.

398. ATCO did not accept the ERA's draft decision on the proposed capital expenditure for SCADA assets during AA5. The revised proposal includes capital expenditure of $5.72 million for the acquisition of SCADA assets during AA5, of which $[redacted] million is for the automated network pressure control project. ATCO maintained that there was an investment need for automated network pressure control, including the reduction of network operating expenditure, deferring or reducing future capital expenditure and providing a platform for continuous asset management improvement through remote network adjustment. ATCO submitted that because the NPV of the capital expenditure project was positive, the project met the criteria for conforming capital expenditure in rule 79 of the NGR. ATCO proposed a step change of $0.82 million for the operating expenditure linked to the proposed automated network pressure control capital expenditure. The proposed operating expenditure step change comprises ongoing operating expenditure for new personnel, licencing, information and operational technology integration, and operations and maintenance of installed field equipment. ATCO stated that it had considered the comments in the ERA's draft decision and the EMCa technical report to refine the capital expenditure and operating expenditure for the SCADA assets, with a view to bringing value and long-term benefits to customers.[190]

399. In its revised proposal, ATCO proposed an operating expenditure step change for security of supply (pipeline patrol) of $0.48 million that was not included in its initial proposal. ATCO stated that this step change was a result of the draft decision wherein the ERA did not include any of the security of supply capital expenditure proposed in ATCO's initial proposal in the draft decision capital expenditure forecast.

400. The ERA's decision not to include the security of supply capital expenditure proposed in ATCO's initial proposal in the draft decision capital expenditure forecast was due to the ERA's conclusion that the identified supply risks in the Bunbury and Two Rocks regions, which ATCO proposed to mitigate through the capital expenditure, should be considered intermediate rather than high as ATCO suggested. Further, the ERA's decision was based on its conclusion that the proposed capital expenditure risk reduction options were unlikely to pass an '"as low as reasonably practicable" (ALARP) test. ATCO revised the risk assessment in response to the draft decision for the identified supply risks to include an additional risk reduction factor to account for the probability that a pipeline puncture (and subsequent isolation) does not result in loss of positive pressure to affected networks. This revision resulted in ATCO reducing its assessed supply risk from high to intermediate. Consequently, ATCO assessed that daily pipeline patrol was the lowest cost solution to reduce risk to an acceptable level for the high supply risks that it had previously proposed to address through a capital expenditure project. ATCO's revised proposal therefore includes a $0.48 million step change for implementing this solution during AA5.

[189] The three programs of work covered by the proposed capital expenditure for SCADA assets in ATCO's initial proposal were the SCADA systems and infrastructure, enhanced data acquisition and automated meter reading programs.

[190] The EMCa technical report is the report by Energy Market Consulting associates titled *ATCO Gas Australia Proposed Access Arrangement for the Mid-West and South-West Gas Distribution Systems Review of Technical Aspects of the Proposed Access Arrangement*, March 2019.

### *ATCO's proposed step changes for non-recurrent network, corporate and IT operating expenditure*

401. ATCO included $5.83 million of non-recurrent changes in operating expenditure over AA5 in its revised operating expenditure forecast. These are shown in Table 59.

**Table 59 ATCO's revised operating expenditure forecast - Changes for non-recurrent network, corporate and IT operating ($ million real as at 31 December 2019)**

| Non-recurrent step change | 2020 | 2021 | 2022 | 2023 | 2024 | AA5 total |
|---|---|---|---|---|---|---|
| Hazardous areas review and remediation | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **0.76** |
| Pipeline inline inspections | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **0.50** |
| Mains reclassification | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **1.72** |
| Asset and business management system review | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **0** |
| AA6 regulatory preparation | 0 | 0 | 0.58 | 1.37 | 0.91 | **2.85** |
| **Total** | **0.51** | **0.55** | **1.62** | **1.91** | **1.25** | **5.83** |

Source: ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, *12 June 2019,* p. 114, Table 9.15.

402. As stated in paragraph 322, the draft decision operating expenditure forecast did not include the proposed $0.76 million change for hazardous areas review and remediation included in ATCO's initial proposal. This was because the ERA concluded that the proposed change covered activities that ATCO was already performing. Further, the ERA concluded that ATCO did not adequately demonstrate that its compliance obligations under the applicable standard materially changed for AA5. Including the proposed change for the hazardous areas review and remediation activities would have therefore resulted in an operating expenditure forecast that is not efficient and which would not comply with rule 91 of the NGR. ATCO did not accept this element of the draft decision and in its revised proposal continued to propose an operating expenditure change of $0.76 million for these activities.

403. ATCO stated that, in 2018, it incurred nominal costs to commence remediation of high risk sites and that from 2019 and during AA5 it would complete inspection activities on the sites identified as high risk through its gas distribution system safety case audit which was conducted in 2017. ATCO stated it would also establish an equipment register to comply with the requirements of standard AS/NZS 4645.1 and complete remediation on its remaining sites. Based on desktop reviews ATCO estimated the volume of activities required to meet its safety compliance obligations under the standard and estimated that it would need to incur $0.76 million of operating expenditure for this volume of work during AA5.

404. As stated in paragraph 323, the proposed $3.05 million step change for the pipeline inline inspections included by ATCO in its initial proposal was included in the draft decision operating expenditure forecast for AA5. In its revised proposal, ATCO stated that given that the required annual pipeline inspection costs were already included in the 2018 adjusted base year, ATCO was only proposing a change for pipeline inline

inspections of $0.50 million for [redacted] when a pipeline inspection activity additional to what was performed during the 2018 base year is scheduled.

405. As stated in paragraph 324, the $0.59 million step change for the mains reclassification project proposed by ATCO in its initial proposal was not included in the draft decision operating expenditure forecast for AA5. ATCO disagreed with this element of the draft decision and proposed a change of $1.72 million for the mains reclassification project in its revised proposal.

406. ATCO's revised proposal provided additional detail on the increase in compliance obligations which ATCO cited as the driver for the initiation of the mains reclassification project. ATCO stated that in the 2018 edition of standard AS/NZS 4645, the definition of a service was changed to one which could supply gas to more than one consumer gas meter. As a result of this change in the standard, ATCO revised its definition of a service to defining a service pipe as one with an internal volume of less than or equal to 0.2 cubic metres at atmospheric pressure. As a result, pipes feeding multiple consumer gas meters within a private property with an internal volume of greater than 0.2 cubic metres are now classified as mains whereas they were previously classified as services. ATCO stated this change increased its compliance obligations, and to manage these obligations and the risk associated with leaks of a pipe with an internal volume greater than 0.2 cubic metres these pipes needed to be leak surveyed. ATCO stated that it was currently unable to complete this activity due to insufficient location data on these assets and it needed to measure and record the location data, the costs of which were part of the change for non-recurring operating expenditure proposed for the mains reclassification project.

407. As stated in paragraph 326, the $0.72 million change for the asset and business management review proposed by ATCO in its initial proposal was not included in the draft decision operating expenditure forecast. ATCO disagreed with the ERA's conclusions in the draft decision on this proposed change. However, ATCO did not propose an operating expenditure change for the review in its revised proposal. Instead, ATCO adjusted the capital expenditure of the enterprise resource planning application project to include the activities which the initial proposal stated would be covered by the asset and business management review.

408. As stated in paragraph 328, the $2.92 million change for AA6 preparation costs proposed by ATCO in its initial proposal was not included in the draft decision operating expenditure forecast. While the ERA concluded that the proposed change for the preparation costs was for activities that represented good industry practice the proposed amount of the step change was not efficient. The draft decision operating expenditure forecast included a step change of $2.29 million for AA6 preparation costs, which the ERA considered was the best estimate of the efficient costs of these activities. ATCO disagreed with this element of the ERA's draft decision and proposed a change of $2.85 million for AA6 preparation costs in its revised proposal.

409. ATCO's revised proposal points to several legislative changes which would require ATCO to incur costs to prepare for AA6 which were $0.57 million higher than those incurred for AA5. These legislative changes include:[191]

- Under section 30P of the NGL, the ERA will be required to review the rate of return instrument and make a new instrument in 2022. ATCO expects to actively participate in this process, as it has done in the past, and plans to

[191] ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 117.

commence its preparation for access arrangement six early in 2022 to incorporate the activities it plans to undertake for the rate of return process. As a consequence, ATCO said that its preparation for AA6 would be executed over an extended period and it would therefore incur costs for mobilising the project team for 10 months more that the AA5 preparations. Based on its average monthly program management expenditure for AA5, ATCO estimated that its additional cost of program management for AA6 would be $0.3 million.

- A new NGR requirement for service providers to make a submission to the ERA on their reference services in September 2022. ATCO stated that this type of work was not included in the operating expenditure forecast for AA5 and on this basis the inclusion of a higher step change for AA6 preparation in the operating expenditure forecast for AA5 was justified. ATCO stated that it expected to incur $0.3 million for expert economic and legal advice due to this new requirement. This cost estimate includes costs due to additional work for the categorisation of services, consulting with customers and stakeholders and preparing the necessary response documentation. ATCO stated that it had determined the expected costs of this work based on the cost of previous comparable deliverables.

### *Output growth escalation factor*

410. ATCO did not accept the output growth escalation factor applied to base year network, corporate and IT costs in the draft decision operating expenditure forecast.

411. ATCO's revised operating expenditure forecast applied the annual output growth rates shown in Table 60. As shown, ATCO derived these output growth escalation factors by applying a 45 per cent weighting to ATCO's revised forecast growth in customer numbers and a 55 per cent weighting to ATCO's revised forecast growth in the length of the network. The forecast growth rates for customer numbers and network length are based on the demand forecast and growth capital expenditure forecasts used in ATCO's revised proposal.

**Table 60 Output growth escalation factors applied in ATCO's revised operating expenditure forecast (%)**

| | Weighting | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|---|
| Customer numbers growth rate | 45 | 0.89 | 1.19 | 1.39 | 1.48 | 1.48 |
| Number of kilometres growth rate | 55 | 0.91 | 1.05 | 1.19 | 1.19 | 1.20 |
| Weighted annual output growth rate | - | 0.90 | 1.11 | 1.28 | 1.32 | 1.33 |

Source: ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 118, Table 9.19.

412. The dollar amount of ATCO's real output growth escalation is shown in Table 61.

**Table 61 ATCO's revised operating expenditure forecast - Real output growth escalation ($ million real as at 31 December 2019)**

| | 2020 | 2021 | 2022 | 2023 | 2024 | AA5 total |
|---|---|---|---|---|---|---|
| Output growth escalation - Network expenditure | 0.98 | 1.34 | 1.75 | 2.19 | 2.62 | **8.88** |
| Output growth escalation - IT expenditure | 0.21 | 0.29 | 0.38 | 0.48 | 0.57 | **1.94** |
| Total output growth escalation | 1.20 | 1.63 | 2.13 | 2.66 | 3.20 | **10.82** |

Source: ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information),* 12 June 2019, p. 118, Table 9.19.

413. ATCO's revised proposal applied the output growth escalation to network and IT costs only compared to its initial proposal where it also applied output growth escalation to corporate costs. ATCO stated that it did not apply output growth escalation to corporate costs in its revised proposal because corporate costs were support services that remained unaffected by an increase in ATCO's number of customers or growth in the length of its network.[192]

***Input real growth escalation factor***

414. ATCO did not accept the labour cost escalation forecast (0.54 per cent) applied by the ERA for the draft decision operating expenditure forecast.

415. As shown in Table 53, ATCO's revised operating expenditure forecast includes input escalation costs of $10.90 million.

416. ATCO's revised input growth escalation factor was derived by applying a 62 per cent/38 per cent weighted average of expected labour price growth and expected non-labour (materials) price growth. These weightings are the same as those applied for calculating the input growth escalation applied for ATCO's initial operating expenditure forecast and were also applied in the draft decision operating expenditure forecast.

417. ATCO's revised proposal applies a labour cost escalation rate of 1.47 per cent, which is calculated as shown in Table 62.

[192] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 118.

**Table 62 Derivation of labour escalation factor applied in ATCO's revised operating expenditure forecast**

| Labour escalation factor component | % |
|---|---|
| Annual average of Western Australian Wage Price Index | 2.60 |
| Plus premium of electricity, gas, water and waste services Wage Price Index over Australian Wage Price Index | 0.15 |
| Equals nominal labour escalation forecast per year | 2.75 |
| Less forecast inflation per annum | 1.28 |
| Equals labour escalation factor | 1.47 |

Source: ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 123, Table 9.23.

418. The annual average of the Western Australian WPI applied by ATCO to derive the labour escalation factor was 2.60 per cent. This was calculated based on Western Australian Treasury WPI data. This data is shown in Table 63.

**Table 63 Wage Price Index forecast applied for deriving the labour escalation factor applied in ATCO's revised operating expenditure forecast (%)**

| | 2018/19 | 2019/20 | 2020/21 | 2021/22 | 2022/23 | Average |
|---|---|---|---|---|---|---|
| Wage Price Index growth | 1.75 | 2.25 | 2.75 | 3.00 | 3.25 | 2.60 |

Source: ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information),* 12 June 2019, p. 119, Table 9.21, based on Department of Treasury, *Economic Forecasts (online),* [accessed September 2019].

419. ATCO stated that the Western Australian Treasury data it used to derive WPI growth was consistent with sentiment expressed in the May 2019 monetary policy decision from the Reserve Bank of Australia.[193]

420. ATCO also stated that because the Western Australian Treasury WPI forecast only extended to 2022/23, covering the first three and a half years of AA5, it could be reasonably argued that WPI growth was likely to further increase in the remaining part of AA5 based on the forecast growth to mid-2023, ATCO stated that this growth was underpinned by expectations of improving economic conditions and associated strengthening of the labour market.

421. ATCO's revised proposal applied a premium of 0.15 per cent for electricity, gas, water and waste services sector WPI growth over the Western Australian WPI to derive the revised labour escalation factor. This premium was calculated based on Australian Bureau of Statistics data by averaging the difference between the percentage change in the WPI for the sector and the percentage change in the WPI for Australia over the years 2015 to 2018 inclusive. This data is shown in Table 64.

[193] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 119-120.

**Table 64 Premium of Wage Price Index growth for the electricity, gas, water and waste services sector applied for the deriving the labour escalation factor applied in ATCO's revised operating expenditure forecast (%)**

| | 2015 | 2016 | 2017 | 2018 | Average |
|---|---|---|---|---|---|
| Percentage change in hourly rates of pay in the electricity, gas, waste and water services sector for Australia | 2.30 | 2.20 | 1.80 | 2.80 | 2.28 |
| Percentage change in the Wage Price Index for Australia | 2.10 | 2.00 | 2.10 | 2.30 | 2.13 |
| Premium | 0.2 | 0.2 | -0.3 | 0.5 | 0.15 |

Source: ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 122, Table 9.22, based on Australian Bureau of Statistics series A2603491L and A2603611V.

422. ATCO gave the following reasons for applying the selected data to estimate the sector premium:[194]

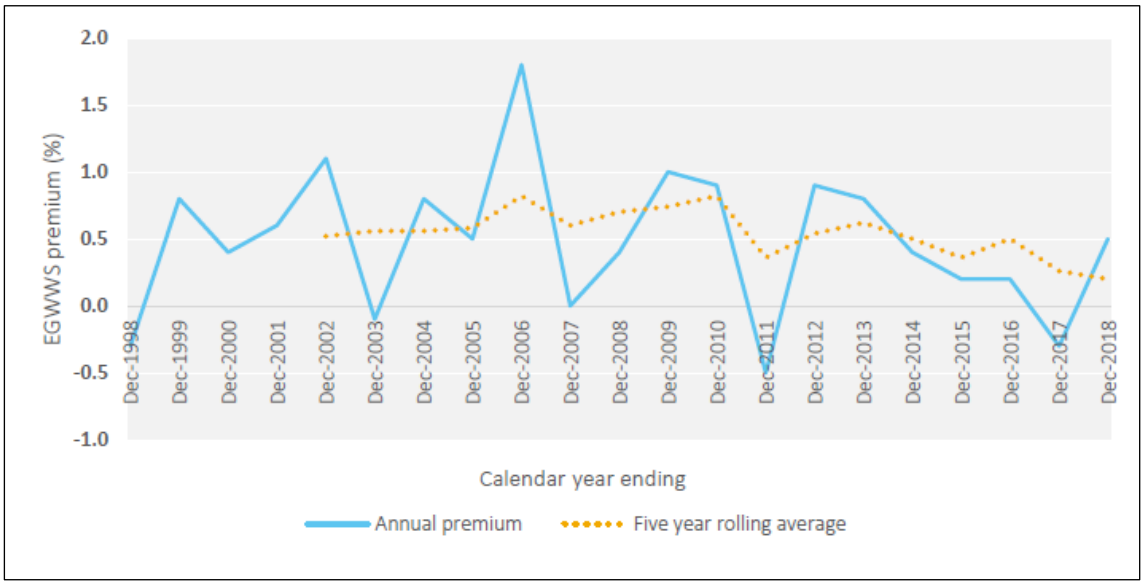
- ATCO considered that comparing the wages growth for the electricity, gas, waste and water services sector and the WPI for all of Australia provided a like-for-like comparison.
- ATCO considered that assessing the premium over the AA4 period provided the best estimate of the premium for the AA5 period.
- ATCO adopted the December quarter values for the data to be consistent with the calendar year reporting adopted by ATCO and the end of year modelling assumption adopted throughout the revenue model.

423. ATCO's revised proposal also presented a figure, based on Australian Bureau of Statistics data and reproduced in Figure 9, which it considered demonstrated that the premium of electricity, gas, water and waste services sector wage index growth over the WPI for all industries was not zero. ATCO stated that the sector premium existed because there were other sectors that competed strongly for labour with the electricity, gas, water and waste services sector, for example construction and mining. ATCO considered that Figure 9 demonstrated that historically there had never been a sustained period where no premium existed, although there had been single years where this had been the case. ATCO considered that this demonstrated that the assumption applied for the draft decision operating expenditure forecast that there would be no sector premium over AA5 was incorrect.[195]

[194] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 121.

[195] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 121.

**Figure 9 Electricity, gas, water and waste services sector premium over the all industries average from ATCO revised proposal**




Source: ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, *12 June 2019, p. 120*, Figure 9.2.

424. ATCO considered that a sector premium would continue because the electricity, gas, water and waste services sector tended to be driven by sectoral labour demand, as well as structural characteristics of labour in the electricity, gas, water and waste water services sector including high unionisation, relatively high skills and industry bargaining. ATCO stated that the annual sector premium existed and furthermore was now on an upward trend, and the five-year average appeared to be on a downward trend that was starting to level off. ATCO considered that this trend was consistent with its consultant's conclusion:[196]

> The recent softness in wages growth in the EGWWS labour sector largely reflects weakness in the general economy and in industries competing for similar skilled labour, particularly in mining and construction. In the medium term, however, economic conditions in Western Australia are expected to improve. As the economy recovers, we expect that the current slack in the labour market will be taken up, with upward pressure on wages as utilities in the EGWWS sector compete to attract skilled workers.

425. ATCO stated that historically none of the downward or upward phases of the cycle lasted for five years. Based on this, ATCO considered that historical data demonstrated that there was a reasonable basis to conclude that a premium over the all industries average would persist over AA5. Connected to this, ATCO noted that the current rolling five-year average for the electricity, gas, waste and water services sector wages premium was 0.2 per cent, whereas the long-run average was 0.5 per cent.[197]

426. Further to the above, ATCO considered that the forecast recovery in Western Australian economic activity, facilitated by increased government infrastructure spending, would likely lift all wages, with electricity, gas, waste and water services sector workers likely to earn a premium due to relatively high skills, strong

[196] Synergies Economic Consulting, *ATCO 2020-24 Plan, Attachment 12.9: Wage Price Index Forecast,* pp. 35-36, cited in *ATCO Gas Australia, 2020-24 Revised Plan (Access Arrangement Information),* 12 June 2019, p. 121.

[197] ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 121.

unionisation and the stronger competition for substitutable labour. ATCO considered that the recent improvements in the mining industry and Western Australian economy were expected to continue to put upward pressure on the electricity, gas, waste and water services sector premium over the WPI for all industries over AA5.

427. ATCO also noted that its proposed electricity, gas, waste and water services sector premium was lower than the 0.2 per cent sector premium applied in the ERA's final decision for Western Power's fourth access arrangement.

428. As shown in Table 62, the forecast inflation applied by ATCO to derive the labour escalation factor was 1.28 per cent. ATCO's revised proposal stated that it had derived its forecast inflation estimate based on the weighted average consumer price index eight capital cities forecast derived from Commonwealth Government securities:[198]

> ATCO considers that the best forecast of real labour cost escalation in the circumstances is to adopt the Weighted Average CPI-Eight Capital Cities forecast derived from Commonwealth Government Securities (as per the Rate of Return Guideline).
>
> In accordance with ERA's 2018 Rate of Return Guideline, in applying the breakeven methodology for this 2020-24 Revised Plan, ATCO has nominated a 20-day averaging period and selected nominal and real Commonwealth Bonds whose terms expire either side of specified maturity dates.

429. ATCO considered that the Commonwealth Government securities provided the best forecast of inflation for calculating the real labour cost escalation. ATCO stated that its method for calculating inflation was a breakeven methodology which was consistent with the ERA's 2018 Rate of Return Guideline and applied a 20-day averaging period and selected nominal and real Commonwealth bonds whose terms expired either side of specified maturity dates.

430. ATCO considered that it was incorrect for the ERA to have applied the Western Australian forecast for Consumer Price Index (CPI) growth in the draft decision to calculate the final real labour cost escalation. ATCO considered that using the Western Australian CPI growth created an inconsistency with the inflation assumptions adopted elsewhere in the draft decision and ATCO's revised proposal, including the rate of return, the calculation of total revenue, the annual tariff variation mechanism and the regulatory asset base roll forward. ATCO cited the following from the final decision for ATCO for AA4 to support its view that there was an inconsistency:[199]

> The Authority also notes that the Weighted Average CPI-Eight Capital Cities rather than the Western Australian CPI has been applied to ATCO's current access arrangement, and has been approved for the fourth access arrangement period. However, the labour cost escalation section of ATCO's response to the Draft Decision and the supporting Acil report refer to the Western Australian CPI. The Authority considers that any proposed real labour cost escalation rate for ATCO should reflect additional growth over the applied CPI.

198 ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 123.

199 ERA, *Final Decision on Proposed Revisions to the Access Arrangement for the Mid-West and South-West Gas Distribution Systems*, 10 December 2015, paragraph 342, cited in *ATCO Gas Australia, 2020-24 Revised Plan (Access Arrangement Information),* 12 June 2019, p. 122.

431. ATCO also cited the ERA's 2018 Rate of Return Guideline as support for adopting the breakeven method to forecast inflation for the weighted average CPI – eight capital cities:[200]

> 1573. In the draft guidelines, the ERA preferred the Treasury bond inflation approach because this approach utilises both nominal and real risk-free rates which are directly observed from the market. As a consequence, these estimates will reflect the market's view of the expected inflation rate.
>
> 1574. The rationale for using market based approaches is that market prices reflect the aggregation of diverse market participant expectations. The forecasts of many different market participants are considered to contain more information and be more relevant than any one particular forecast model or method.
>
> 1575. The ERA considered that the Treasury bond implied inflation approach is the most robust measure of inflation expectations for a regulatory period. This method is consistent with and most appropriately aligns with the ERA's regulatory period.

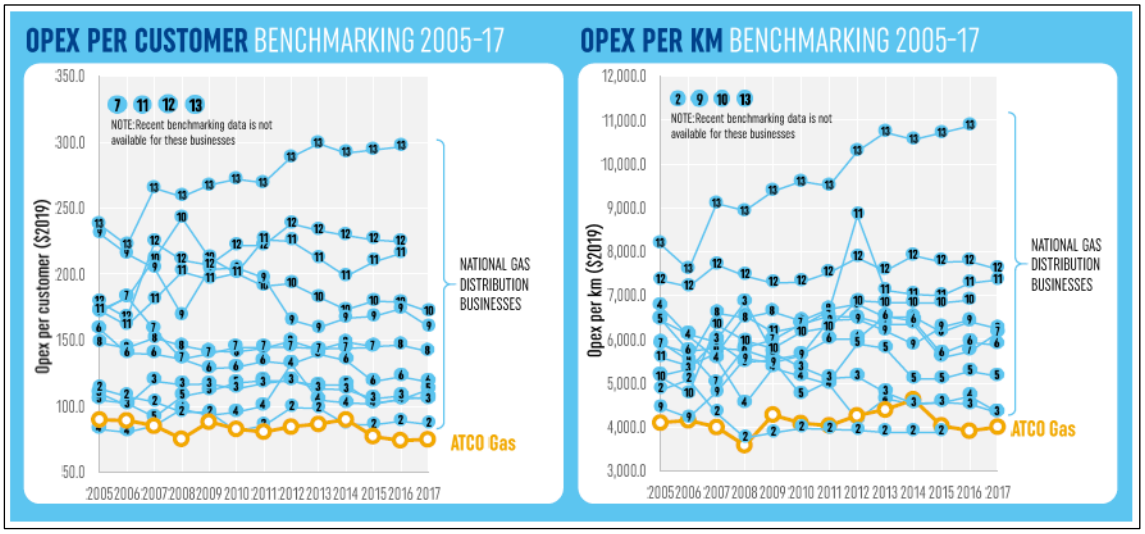
***Productivity adjustment***

432. ATCO's revised proposal did not apply a productivity adjustment to its operating expenditure forecast.

433. ATCO supplied the following reasons for not applying a productivity adjustment to its revised operating expenditure forecast:[201]

- ATCO's productivity is already efficient compared to its peers according to its own benchmarking, the results of which are shown in Figure 10. ATCO considers that any further reduction in costs through a productivity adjustment would not be in the long-term interest of consumers as it would likely adversely affect ATCO's ability to provide a safe and reliable natural gas service. Additionally, ATCO considers that application of an arbitrary productivity adjustment would result in it not being able to recover its efficient costs and therefore applying a productivity adjustment would not necessarily achieve a sustainable cost of delivering pipeline services.

**Figure 10 ATCO's operating expenditure benchmarking**




200 ERA, Final Gas Rate of Return Guidelines Explanatory Statement – Meeting the requirements of the National Gas Rules, December 2018, p. 251.

201 ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, pp. 123-124.

Source: ATCO Gas Australia, *2020-24 Plan (Access Arrangement Information)*, 12 June 2019, p. ix, Figure 1.1.

- ATCO's productivity is already efficient because it made operating changes during AA4 which resulted in outperformance against the AA4 final decision operating expenditure forecast. ATCO says that these savings and efficiencies have been embedded in the business and as a result continue to flow to customers in AA5.
- ATCO will absorb $2.63 million in costs for network step changes over AA5 that were not included in the base year and therefore not included in its revised operating expenditure forecast. These costs are shown in Table 65. ATCO says that its absorption of these costs was equivalent to an implied annual efficiency improvement of 0.5 per cent on network-related operating expenditure.

**Table 65 Planned AA5 operating expenditure which ATCO stated is not included in its revised operating expenditure forecast ($ million real as at 31 December 2019)**

| Operating expenditure item | $ million |
|---|---|
| Asset sampling and testing | 0.13 |
| Third-party damage prevention and pipeline safety | 1.84 |
| Additional vegetation clearing for Bunbury and Busselton | 0.08 |
| Condition assessment and data gathering in central business district | 0.02 |
| Overpressure shut-off devices maintenance | 0.57 |
| **Total** | **2.63** |

Source: ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 124, Table 9.24.

- ATCO stated that it was unlikely to improve its operating expenditure productivity during AA5 through technological developments. ATCO stated that the majority of its proposed capital expenditure for AA5 was for network sustaining projects, network growth projects, and structures and equipment. ATCO stated that it had chosen to invest in network replacement and growth rather than strategic projects to enhance the productivity and efficiency of its operations because it considered that it already employed an efficient operating business model. Additionally, ATCO stated that it did not anticipate productivity gains due to IT investments because most of its IT capital expenditure related to the renewal of existing applications rather than new systems that would lead to productivity improvements.
- ATCO considers that, because it forecast declining new connections numbers and declining average gas demand per connection over AA5, it is unlikely that it would improve its operating expenditure productivity during AA5 due to increasing economies of scale.

### *Ancillary services operating expenditure*

434. ATCO's revised ancillary services operating expenditure forecast, shown in Table 66, was $16.43 million. This was 12.21 per cent higher than ATCO's initial ancillary services operating expenditure forecast of $14.64 million.

**Table 66 ATCO's revised operating expenditure forecast – Proposed ancillary services operating expenditure ($ million real as at 31 December 2019)**

| | 2020 | 2021 | 2022 | 2023 | 2024 | AA5 total |
|---|---|---|---|---|---|---|
| Applying a meter lock | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **2.35** |
| Removing a meter lock | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **1.11** |
| Deregistering a delivery point | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **1.40** |
| Disconnecting a delivery point | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **1.75** |
| Reconnecting a delivery point | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **1.99** |
| Special meter reads | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **7.84** |
| **Total** | **3.20** | **3.24** | **3.28** | **3.33** | **3.38** | **16.43** |

Source: ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information),* 12 June 2019, p. 125, Table 9.25.

435. ATCO's revised ancillary services operating expenditure forecast applied the unit rates for ancillary services proposed in its initial forecast and accepted in the ERA's draft decision.

436. ATCO's revised ancillary services operating expenditure forecast applied the forecast volumes in ATCO's revised proposal, which were higher than the forecast volumes applied in its initial operating expenditure forecast.

437. Given that the unit rates for ancillary services applied in ATCO's revised operating expenditure forecast were the same as those applied in its initial forecast, the increase in the ancillary services operating expenditure forecast was wholly due to the changed demand assumptions applied by ATCO.

### *UAFG operating expenditure*

438. As stated in paragraph 359, ATCO's revised operating expenditure forecast included $21.78 million of UAFG costs, which was 28.16 per cent lower than the UAFG costs included in ATCO's initial forecast ($30.32 million). ATCO's revised proposed UAFG forecast is shown in Table 67.

**Table 67 ATCO's revised operating expenditure forecast - Proposed UAFG operating expenditure (units specified by row)**

| | 2020 | 2021 | 2022 | 2023 | 2024 | AA5 total |
|---|---|---|---|---|---|---|
| UAFG rate (%) | 2.45 | 2.43 | 2.4 | 2.39 | 2.37 | - |
| Total consumption excluding UAFG (terajoules) | 26,616 | 26,823 | 26,422 | 26,016 | 25,884 | **131,760** |
| ATCO proposed UAFG operating expenditure ($ million real as at 31 December 2019) | 3.76 | 4.43 | 4.45 | 4.50 | 4.64 | **21.78** |

Source: ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 125, Table 9.26.

439. ATCO's revised UAFG forecast reflected the following changes in assumptions compared to the initial proposal:

- The revised UAFG forecast applied the UAFG price determined through the competitive tender that was completed in June 2019, rather than the placeholder price applied for the initial proposal.
- The revised UAFG forecast applied the UAFG volumes from ATCO's revised demand forecast.
- The revised UAFG forecast applied lower UAFG rates than were applied in ATCO's initial proposal.

440. The individual effects of the changes in each of these assumptions on the revised UAFG forecast are shown in Table 68.

**Table 68 Effects of changed UAFG assumptions on revised UAFG operating expenditure forecast ($ million real as at 31 December 2019)**

| | 2020 | 2021 | 2022 | 2023 | 2024 | AA5 total |
|---|---|---|---|---|---|---|
| Initial proposed UAFG operating expenditure | 6.30 | 6.25 | 6.07 | 5.90 | 5.80 | **30.32** |
| Change in UAFG forecast due to additional volumes | 0.20 | 0.20 | 0.20 | 0.30 | 0.30 | **1.20** |
| Change in UAFG forecast due to UAFG price savings | -2.70 | -2.00 | -1.80 | -1.70 | -1.40 | **-9.60** |
| Revised proposed UAFG operating expenditure | 3.76 | 4.43 | 4.45 | 4.50 | 4.64 | **21.78** |
| Total difference in UAFG forecasts (revised proposal minus initial proposal) | -2.50 | -1.80 | -1.70 | -1.40 | -1.20 | **-8.50** |

Source: ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 126, Table 9.27.

## *Submissions to the ERA*

441. In response to ATCO's initial proposal, Alinta Energy and Synergy accepted the use of the base-step-trend method for forecasting ATCO's operating expenditure for AA5.[202] Alinta noted, however, that the intended expenditure would require ERA evaluation to determine whether it met the criteria outlined in rule 91 of the NGR. Alinta also observed that, as customer connection growth forecasts may have a substantial effect on operating expenditure, these should be carefully reviewed by the ERA.

442. Similarly, while Synergy agreed with the reasonableness of the use of the base-step-trend method, it challenged ATCO's application of the method in the initial proposal whereby costs were escalated and passed through. Specifically, Synergy

[202] Synergy Submission to the Economic Regulation Authority's Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024, 10 July 2019, p. 6.

considered that ATCO's application of the base-step-trend method for forecasting its operating expenditure did not account for economies of scale or efficiencies as a result of its capital expenditure programs and therefore could not reflect the lowest sustainable costs of service delivery. Synergy expected that ATCO had identified specific areas where step changes that decreased operating expenditure could be achieved, including projects that ATCO stated would or could reasonably be expected to deliver productivity or efficiency improvements, and that these efficiency savings should be removed from ATCO's forecast operating expenditure. Synergy cited the AA5 upgrades to IT systems and significant investment in SCADA and remote control capability as examples of projects that it expected would only be included in ATCO's forecasts if they were expected to deliver efficiencies, and therefore an associated reduction in future operating expenditure would be warranted to reflect the trade-off between capital expenditure investments and operating expenditure savings.

443. Kleenheat[203] questioned the use of benchmarks in ATCO's initial proposal as a basis for comparison to evaluate ATCO's operating efficiency. While Kleenheat acknowledged that benchmarks against other gas pipeline owners in Australia were an important measure, Kleenheat considered that some networks were generally understood to be gold plated to earn higher returns for owners, and that the Australian Competition and Consumer Commission and AER were looking closely at price reviews for all network operators.

444. In response to the draft decision, Synergy submitted that the average annual operating expenditure increase forecast in the ERA's draft decision is more in line with the level of operating expenditure growth Synergy would expect to see for a gas distribution network with a significant recent network renewal program and low forecast demand growth.[204]

445. Synergy considers that the ERA's conclusions in the draft decision on the step changes and output growth escalation applied by ATCO for its operating expenditure forecast were appropriate, as ATCO had not adequately justified the need for the proposed operating expenditure increases and, in some instances, failed to demonstrate that those same cost categories should be recovered from customers through regulated revenue.[205]

446. Synergy says that 2017 should continue to be used in the final decision as the efficient base year for forecasting ATCO's operating expenditure. Synergy's reasons for its recommendation are:[206]

- Conducting a detailed assessment of another base year is an inefficient use of the ERA and stakeholder time but would be required if a new base year was applied to ensure the resulting operating expenditure forecast satisfied the

[203] Kleenheat Submission to the Economic Regulation Authority's Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024, 13 November 2018, p. 2.

[204] Synergy Submission to the Economic Regulation Authority's Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024, 10 July 2019, p. 6.

[205] Synergy Submission to the Economic Regulation Authority's Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024, 10 July 2019, p. 6.

[206] Synergy Submission to the Economic Regulation Authority's Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024, 10 July 2019, p. 6.

requirements of the NGR. Synergy considered that the ERA's analysis of 2017 provided a basis for a reasonable forecast and was sufficient to meet the requirements of the NGR.

- There would likely be negative step changes to the base year operating expenditure that ATCO had not identified, and which would need to be assessed and offset against the increases identified in ATCO's revised proposal.
- Using 2018 actual operating expenditure was unlikely to result in a materially different operating expenditure forecast.

447. Synergy expressed its view that a productivity adjustment should be applied to the operating expenditure forecast for the final decision because:[207]

- The inclusion of a productivity adjustment is not inconsistent with the requirement to provide a safe and reliable natural gas service under rules 74 and 91 of the NGR.
- The absence of strategic projects to enhance productivity or efficiency in AA5 did not necessarily mean that there are no efficiencies available to ATCO. Synergy considers that this is supported by several statements in ATCO's initial access arrangement submission where ATCO notes efficiencies to be gained through implementation of parts of its forecast capital expenditure program. These include planned upgrades during AA5 to IT systems, including SAP, and significant investments in SCADA and remote control capability.

448. Responding to ATCO's submission in its revised proposal that a productivity adjustment is not required because ATCO is absorbing $2.6 million of network related step changes, Synergy says that absorbing cost increases is not equivalent to a productivity improvement and that rather the absorption of cost increases can infer inadequate forecasting and/or cost management.[208]

449. Synergy recommends the ERA consider the imposition of an efficiency dividend to ensure that ATCO's operating costs do not continue to increase in real terms and result in additional fees on network users and end customers.[209]

450. In response to ATCO's revised proposal, Energy Networks Australia agreed with ATCO's use of 2018 actual operating expenditure as the base year for the base-step-trend forecast of operating expenditure. Energy Networks Australia states that the most recent actual expenditure figures were a better representation of expected future costs than forecasts. Energy Networks Australia states that ATCO's 2018 operating expenditure was in line with previous years within the AA4 access arrangement period, especially after adjusting for growth in customer numbers during 2016 and 2017. Energy Networks Australia also observed that ATCO introduced more granular forms of cost reporting from 1 January 2018 and thus 2018 costs were

[207] Synergy Submission to the Economic Regulation Authority's Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024, 10 July 2019, p. 7.

[208] Synergy Submission to the Economic Regulation Authority's Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024, 10 July 2019, p. 7.

[209] Synergy Submission to the Economic Regulation Authority's Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024, 10 July 2019, p. 7.

more likely to represent ATCO's future efficient operating expenditure. Energy Networks Australia also considers that using the latest available year of actual expenditure data and removing any non-recurrent expenditure is a standard approach to determining operating expenditure allowances and is consistent with approaches used by other regulators.[210]

## *Final decision*

### *Overview*

451. Table 69 compares operating expenditure forecasts for ATCO's initial and revised proposals against the ERA's draft decision and final decision. The reasons for the ERA's final decision follow in the remainder of this section.

**Table 69: Comparison of AA5 operating expenditure forecasts ($ million real as at 31 December 2019)**

| | ATCO initial proposal[(a)] | ERA Draft Decision[(b)] | ATCO revised proposal[(c)] | ERA final decision[(d)] |
|---|---|---|---|---|
| Base operating expenditure | 273.76 | 251.74 | 274.00 | **261.61** |
| Step changes | 16.59 | 7.85 | 11.17 | 9.61 |
| Output growth escalation | 13.04 | 6.02 | 10.82 | 7.49 |
| Input growth escalation | 9.02 | 4.33 | 10.90 | 3.66 |
| UAFG | 30.32 | 29.76 | 21.78 | 21.97 |
| Ancillary services | 14.64 | 17.11 | 16.43 | 16.92 |
| **Total** | **357.36** | **316.81** | **345.09** | **321.25** |

Source: (a) ATCO Gas Australia, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 75, Table 11.3; (b) ERA, *Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024,* 18 April 2019, Table 41, p. 77; (c) ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information),* 12 June 2019, Table 9.28, p. 126; (d) ERA, *AA5 Final Decision Operating Expenditure Model*, 23 October 2019.

### *Base-step-trend forecasting method*

452. The ERA maintains its conclusion from the draft decision that the base-step-trend method can yield an operating expenditure forecast for ATCO's AA5 network, corporate and IT operating expenditure that fulfils the criteria for operating expenditure set out in rule 91 of the NGR and the requirements in respect of forecasts in rule 74 of the NGR.

453. ATCO's past costs for the network, corporate and IT cost categories provide a reliable starting point for determining an efficient forecast as these costs are generally expected to be recurrent during AA5.

454. The ERA's final decision operating expenditure forecast revises ATCO's application of the base-step-trend method, as the ERA considers, for the reasons set out in this

[210] Energy Networks Australia submission to ATCO 2020 to 2024 Access Arrangement Draft Decision, 10 July 2019, p. 15.

final decision, that some assumptions applied in deriving ATCO's revised operating expenditure:

- Do not yield the best forecast or estimate possible, as required by rule 74 of the NGR.

and/or

- Do not yield a forecast that reflects the operating expenditure that would be incurred by a prudent service provider acting efficiently and in accordance with accepted good industry practice, as required by rule 91 of the NGR.

455. The assumptions applied by ATCO to derive its revised operating expenditure forecast which the ERA considers are inconsistent with rules 74 and 91 of the NGR are:

- ATCO's calculation of the efficient base year operating expenditure. While the ERA agrees with the adjustments applied by ATCO to the 2018 base year, the ERA also identified other operating expenditure included in the 2018 base year which it expects will not recur during AA5. The ERA's calculation of the efficient base year amount therefore includes additional adjustments to remove those amounts of operating expenditure which it considers exceed the efficient amount for those items.
- The amount of some of the step changes applied (however, the ERA concluded that all the proposed step changes were acceptable in principle).
- The inputs applied to calculate the output escalation factor.
- The inputs applied to calculate the input escalation factor.

456. As the ERA accepts the use of the base-step-trend method for forecasting ATCO's operating expenditure it has not scrutinised the revised bottom-up forecast of operating expenditure presented in the revised proposal in depth.

***Selection of the most appropriate base year***

457. The ERA accepts ATCO's revised proposal to use 2018 as the starting point for deriving its efficient base year cost for network, corporate and IT operating expenditure. The ERA's final decision operating expenditure forecast therefore applies ATCO's 2018 network, corporate and IT operating expenditure, as specified in its 2018 regulatory accounts, as the starting point for deriving the efficient base year expenditure for AA5.

458. As stated at paragraph 450, Energy Networks Australia agrees with ATCO's use of 2018 as the base year based on its view that the most recent actual expenditure figures were a better representation of ATCO's expected future costs than forecasts. While the ERA maintains its view from the draft decision that ATCO's approach to deriving the base year in its initial proposal introduced forecasting error, using the most recent actual expenditure figures does not of itself confirm that the base year is efficient. Rather, the operating expenditure included in the proposed base year must be evaluated to determine whether the costs incurred in the proposed base year were efficient costs, that ATCO had the incentive to incur these costs efficiently, and that the costs are likely to reflect the recurrent expenditure to be incurred over AA5. While acknowledging that using the most recent actual expenditure figures is consistent with the approach applied by other regulators as submitted by Energy Networks Australia, selection of the base year must be guided by these considerations.

459. ATCO has provided sufficient explanation for the differences between its 2017 operating expenditure and 2018 operating expenditure. These explanations are outlined in paragraphs 369 to 390.

460. The ERA concludes that most of the costs ATCO incurred in 2018 were incurred efficiently. The ERA considers that ATCO had an incentive to incur operating expenditure prudently and efficiently during 2018 due to the operation of the NGL and NGR, being an incentive regulatory framework. Where the ERA has identified costs included in 2018 that are not likely to be recurrent in AA5 the ERA has made adjustments to the base year to derive the efficient base year costs. These adjustments are outlined in paragraphs 467 to 480.

461. Based on the ERA's conclusions that the operating costs included in the proposed base year were efficient costs, that ATCO had the incentive to incur these costs efficiently, and that most of the costs are likely to reflect the recurrent expenditure to be incurred over AA5, the ERA concludes that 2018 provides, consistent with rule 74 of the NGR, the best estimate possible in the circumstances of base year costs for ATCO's forecast of network, corporate and IT operating expenditure for AA5.

462. As stated at paragraph 446, in response to ATCO's revised proposal, Synergy submitted that conducting a detailed assessment of a base year (2018) other than the one applied in ATCO's initial proposal was an inefficient use of the ERA and stakeholder time and that Synergy considered the analysis of 2017 expenditure in the draft decision provided a basis for a reasonable forecast and was sufficient to meet the requirements of the NGR. The ERA also considers that the draft decision operating expenditure forecast satisfied the requirements of the NGR. However, rule 60 of the NGR provides scope for ATCO to submit additions or amendments to its initial proposal in response to the draft decision:

> **60 Revision of access arrangement proposal in response to draft decision**
>
> (1) The service provider may, within the revision period, submit additions or other amendments to the *access arrangement proposal* to address matters raised in the access arrangement draft *decision*.
>
> (2) The amendments must be limited to those necessary to address matters raised in the access arrangement draft *decision* unless the [ERA] approves further amendments.
>
> **Example:**
>
> The [ERA] might approve amendments to the *access arrangement proposal* to deal with a change in circumstances of the service provider's business since submission of the *access arrangement proposal.*
>
> (3) If the service provider submits amendments to the *access arrangement proposal,* the service provider must also provide the [ERA] (together with the amendments) with a revised proposal incorporating the amendments.
>
> (4) As soon as practicable after receiving the revised *access arrangement proposal*, the [ERA] must publish it on its website.

463. According to rule 60(2) of the NGR, the amendments submitted by ATCO must be limited to those necessary to address matters raised in the draft decision unless the ERA approves further amendments. While the draft decision did not include a required amendment to amend the base year to 2018, ATCO has stated that its proposal to use 2018 as the base year is based on the following:[211]

[211] ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 96.

> ATCO does not accept using 2017 as the base year for revised network costs as additional information is now available.
>
> ATCO proposes using 2018 as the starting point to derive the efficient base year for network, corporate and IT opex, as the 2018 calendar year is the most recent year of actual expenditure.
>
> ATCO asserts that 2018 is more representative of ongoing costs, given it is the most recent year of actuals. Several changes occurred in 2018 and as a result, costs have fluctuated across various categories. For example, ATCO introduced time-sheeting from 1 January 2018 for office staff and field supervisors resulting in more accurate cost allocation to reference services.

464. In accordance with rule 60(2) of the NGR, the ERA approves ATCO's amendment to use 2018 as the base year in the revised proposal given that there has been a material change in circumstances since submission of ATCO's initial proposal. Specifically, ATCO's 2018 actual operating expenditure results became available after ATCO's initial proposal was submitted and those results were prepared using a materially different cost allocation method for the network, corporate and IT cost categories than was applied in 2017.[212] ATCO's operating expenditure will be reported applying the same allocation method as was applied in 2018 onwards. Using 2018 as the base year will therefore align the forecast of network, corporate and IT cost categories with the allocation method that ATCO will use to report those cost categories. The ERA therefore considers that using ATCO's 2018 actual operating expenditure as the base year provides the most reasonable basis available for the operating expenditure forecast at the time of preparing the final decision. Using 2018 as the base year therefore satisfies rule 74 of the NGR.

465. Synergy also submitted that there would likely be negative step changes to the base year operating expenditure that ATCO had not identified, and which would need to be assessed and be offset against the identified increases.[213] The ERA has identified adjustments to the 2018 base year for costs incurred during 2018 that were likely to be non-recurrent during AA5. These are outlined in paragraphs 467 to 480.

466. The ERA's final decision operating expenditure forecast (shown in Table 83) is $5.11 million more than its draft decision operating expenditure forecast. Synergy submitted that using 2018 actual operating expenditure as the base year was unlikely to result in a materially different operating expenditure forecast to the draft decision. The ERA considers that in calculating the final decision operating expenditure forecast it must have regard to determining the best forecast possible in the circumstances to satisfy rules 74 and 91 of the NGR. The difference between the final decision forecast and the draft decision forecast alone is not a relevant consideration under the NGR.

### *Adjustments to derive efficient base year, network, corporate and IT operating expenditure*

467. The ERA evaluated the adjustments ATCO applied to calculate the efficient base year amount included in its revised operating expenditure forecast and concludes that these adjustments are appropriate as these costs will not recur in each of the years within AA5. The ERA's final decision operating expenditure forecast therefore

[212] ATCO has supplied information to the ERA which shows the effect of the change in allocation method on the operating expenditure reported in its 2018 regulatory financial statements. ATCO Gas Australia, E-mail dated 1 May 2019, Attachment *'2018_Confidential_ERA_Information_Spreadsheet_Sent_ERA'*.

[213] Synergy Submission to the Economic Regulation Authority's Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution systems Access Arrangement for 2020 to 2024, 10 July 2019, p. 6.

includes all the adjustments to derive the efficient base year operating expenditure proposed by ATCO. Additionally, the ERA evaluated the other costs included in ATCO's actual 2018 network, corporate and IT operating expenditure and identified certain operating expenditure items where the amount included in the 2018 base year exceeds the amount that would be incurred by a service provider acting efficiently and in accordance with good industry practice. Where the ERA identified such costs, it has applied additional adjustments to ATCO's actual 2018 network, corporate and IT operating expenditure to calculate the efficient base year amount for the final decision operating expenditure forecast.

468. The ERA agrees that the $1.80 million of operating expenditure incurred by ATCO in 2018 for the preparation of the AA5 revision submission will not recur annually during AA5. The ERA has therefore adjusted the base year to remove $1.80 million from ATCO's 2018 actual network, corporate and IT operating expenditure to derive the efficient base year operating expenditure.

469. The ERA agrees that $0.20 million of operating expenditure for operations projects and variable volume works incurred by ATCO in 2018 will not recur annually during AA5. The reasons provided by ATCO for why these costs were considered non-recurring are outlined in paragraph 366. The ERA's technical advisor – Energy Market Consulting Associates (EMCa) - reviewed this explanation and provided its opinion that the amount for operations projects and variable volume works retained in ATCO's 2018 base year after deducting the non-recurring component of $0.20 million was reasonable.[214] Based on the evaluation of the explanation supplied by ATCO for the adjustment and the technical advice from EMCa, the ERA has adjusted the base year to remove $0.20 million from ATCO's 2018 actual network, corporate and IT operating expenditure.

470. The ERA agrees that $0.18 million of operating expenditure for pipeline inspections incurred by ATCO in 2018 will not recur annually during AA5. As outlined in paragraph 369, ATCO incurred a total of [redacted] million operating expenditure in 2018 for pipeline inspections. Subtracting $0.18 million from this amount leaves [redacted] million in the base year for annual pipeline inspections. [redacted] million is equal to the annual step change for pipeline inspections included in ATCO's initial proposal and accepted in the draft decision but subsequently not proposed as a step change in the revised proposal given this amount is already included in the 2018 base year. The ERA therefore considers [redacted] million is an annual amount for pipeline inspection costs that would not be incurred by a service provider acting efficiently and in accordance with good industry practice and has adjusted the base year to remove $0.18 million, representing non-recurring pipeline inspections costs. This view is supported by the advice from the ERA's technical advisor.[215]

471. ATCO stated that it incurred $3.23 million of business development and marketing expenditure in 2018 and provided a description of the activities this expenditure covered.[216] ATCO did not accept the ERA's adjustment to the base year in the draft decision to subtract $1.90 million of business development and marketing costs

[214] Energy Market Consulting Associates, Review of Technical Aspects of the Proposed Access Arrangement, October 2019, paragraph 247.

[215] Energy Market Consulting Associates, Review of Technical Aspects of the Proposed Access Arrangement, October 2019, paragraph 282.

[216] The full list of examples is presented in ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 101, Table 9.10.

incurred in the 2017 base year, thereby reducing the amount of business development and marketing costs included in the 2017 base year to $1.90 million.

472. Although the amount of the business development and marketing expenditure ($3.23 million) included in the base year in ATCO's revised proposal (2018) was lower than the initial proposal, the ERA considers that $3.23 million is still anomalously high compared to historical levels and would not be incurred by a service provider acting efficiently in accordance with rule 91 of the NGR. Further, the additional explanation supplied in ATCO's revised proposal does not adequately demonstrate that the amount included can be justified in the efficient base year based on the benefit it would provide to consumers. The $3.23 million for business development and marketing in ATCO's revised operating expenditure forecast therefore does not satisfy rule 100 of the NGR, which requires that the provisions of an access arrangement must be consistent with the national gas objective, which is to promote efficient investment in and operation and use of natural gas services for the long-term interests of consumers.

473. The ERA has adjusted the amount of business development and marketing expenditure included in the base year by $1.27 million. This adjustment reduces the expenditure from the actual amount incurred by ATCO in 2018 to $1.96 million. This is equal to the amount included in the efficient base year in the ERA's draft decision operating expenditure forecast, and the annual amount included in the ERA's AA4 final decision forecast operating expenditure in real terms.[217] The ERA maintains its view from the draft decision that $1.96 million represents a more efficient level of operating expenditure, which aligns with good industry practice as required by rule 91 of the NGR.

474. ATCO did not include an adjustment to short-term incentive payments in deriving its efficient base year operating expenditure. The ERA has adjusted the amount of short-term incentive payments included in the base year by $0.89 million. This adjustment reduces the amount of short-term incentive payments included in the base year from the actual amount incurred by ATCO in 2018 ($1.66 million) to $0.78 million. The adjusted amount of staff bonus expense included in the efficient base year estimate for the final operating expenditure forecast is based on averaging the short-term incentive payments made by ATCO in the 2015 to 2018 years inclusive, as shown in Table 70.

[217] The annual amount of business development and marketing expense included in the AA4 final decision operating expenditure forecast for 2019 comprised $1.91 million of baseline expense plus $0.05 million of labour escalation when measured in dollars real as at 31 December 2019. The annual amount of baseline business development and marketing expense included in the AA4 final decision operating expenditure forecast for 2015 to 2018 inclusive was also $1.91 million (real dollars as at 31 December 2019). The ERA considers that the annual amount should include the labour escalation as the labour escalation is the additional cost which would have been incurred during the year due to increases in the cost of labour inputs. The annual amount inclusive of labour cost escalation therefore reflects the amount that would be incurred by a service provider acting efficiently and in accordance with accepted good industry practice, as required by rule 91 of the NGR. ERA, *Final Decision on Proposed Revisions to the Access Arrangement for the Mid-West and South-West Gas Distribution Systems*, 30 June 2015, p. 97, Table 29, paragraph 240.

**Table 70 Final decision operating expenditure forecast - Calculation of efficient amount of short-term employee incentive payments included in base year operating expenditure ($ million real as at 31 December 2019)**

| | 2015 | 2016 | 2017 | 2018 | Average |
|---|---|---|---|---|---|
| Operating expenditure for short-term incentive payments | [redacted] | [redacted] | [redacted] | [redacted] | 0.78 |

Source: ATCO Gas Australia*, response to information request ERA 56,* 25 September 2019.

475. The ERA considers that $0.78 million more closely represents good industry practice and an efficient level of annual employee bonus expense than the 2018 actual amount, as required by rule 91 of the NGR. This is based on a comparison of ATCO's 2018 staff bonus payments with historical costs. ATCO's 2018 staff bonus expense was unusually high relative to preceding years, particularly 2014 and 2015 when no short-term incentive payments were paid. Including the full amount of staff bonuses in the base year amount would therefore not result in an efficient base year operating expenditure. As stated at paragraph 384, ATCO disagreed with the ERA's comparison of the amount of short term incentive payments included in the base year to 2014 and 2015, as outlined in the draft decision.[218] ATCO submitted that 2015 and 2016 did not provide a comparable basis for evaluating base year incentive payments due to the employment market conditions in those years and the uncertainty created by the AA4 process and the delayed outcome of the AA4 final decision in those years.

476. The ERA acknowledges that certain operating expenditure cost items, including incentive payments, may fluctuate year to year. The ERA considers that averaging ATCO's short-term incentive payments over all full years in the AA4 period for which actual cost is available provides the most efficient estimate of incentive payment operating expenditure for inclusion in the base year as it provides an average of the incentive payments that would be incurred during a regulatory cycle, notwithstanding single year fluctuations. This approach also addresses ATCO's concern that there is no logical basis for retaining only the provisioned amount of short-term incentive payments in the efficient base year estimate of network, corporate and IT costs because the provisioned amount does not represent the actual costs incurred or the best forecast of the recurring cost of this item over AA5.

477. As outlined at paragraph 277, ATCO's view was that EMCa's statement that ATCO should pay bonuses from outperformance cost reductions implied that the business would only pay staff incentives if there was outperformance. The ERA's adjustment of short-term incentive payments included in the base year does not rely on an assumption that ATCO would only pay staff incentives if there was outperformance.

478. The ERA has reviewed the data and reports provided by ATCO to support its submission that its short-term incentive payment percentages and budgetary allowances are consistent with the available data on industry, state and national trends.[219] The ERA does not disagree with ATCO's statements that its 2018 short-term incentive payment percentages align with common industry practice and

[218] This comparison is found in ERA, *Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024*, 18 April 2019, paragraph 232.

[219] The data referred to was supplied to the ERA in confidence in ATCO's response to information request ERA 21, 11 September 2019.

benchmarked levels.[220] The benchmarking data and reports relied on by ATCO in making these statements, however, are mostly generic, based on national trends and data rather than being industry-specific. ATCO does refer to specific data for the industrial and services sector (not including resources) on incentive payments paid as a percentage of target discretionary incentive payment percentages, however, there is very wide variability in the payout rate.[221] However, ATCO's 2018 short-term incentive payments are still anomalously high relative to ATCO's own revealed costs for incentive payments in previous years.

479. The ERA considers that, as opposed to generic data, ATCO's own revealed costs for short-term incentive payments provide the most reasonable basis for estimating the short-term incentive payments that ATCO will incur during AA5. Averaging ATCO's actual incentive payments over four years, as the ERA has applied in this final decision to derive the best estimate of short-term incentive payments included in the efficient base year, also has the advantage of correcting for year-to-year fluctuations in the amount of short-term incentive payments incurred by ATCO. This therefore yields the best estimate of the amount of short-term incentive payments that are likely to recur, on average, during AA5, and is consistent with rule 74 of the NGR.

480. Table 71 summarises the calculation of the efficient base year included in the final decision operating expenditure forecast for AA5, including the adjustments outlined at paragraphs 467 to 478.

**Table 71 Final decision operating expenditure forecast - Calculation of efficient base year network, corporate and IT operating expenditure ($ million real as at 31 December 2019)**

| | **Line item /** Adjustment |
|---|---|
| 2018 network, corporate and IT operating expenditure | 56.65 |
| **Adjustments** | |
| Access arrangement five regulatory preparation | -1.80 |
| Non-recurrent portion of operations projects and variable volume works | -0.20 |
| Non-recurrent portion of pipeline inspection costs included in 2018 base year | -0.18 |
| Adjustment to base year business development and marketing expenses | -1.27 |
| Adjustment to base year staff incentive payments | -0.89 |
| **Total adjustments** | **-4.33** |
| Efficient base year network, corporate and IT operating expenditure | 52.32 |

[220] The ERA did not request, and has not been provided with, the data that would be necessary on ATCO's employee compensation to verify these statements however confirming the conclusions reflected in these statements is not material to the ERA's reasoning for its method for determining the best estimate of short-term incentive payments in the efficient base year.

[221] The data ATCO refers to indicates that on average, short-term incentive payments are paid at a rate of between [redacted] of the discretionary short-term incentive payment percentages targeted by businesses in the infrastructure and services sector.

### *ATCO's proposed step changes for recurrent network, corporate and IT operating expenditure*

481. The recurrent operating expenditure which ATCO included as step changes in its revised proposed operating expenditure forecast for AA5 are shown in Table 72.

**Table 72 Step changes for recurrent operating expenditure included in ATCO's revised proposed operating expenditure forecast for AA5 ($ million real as at 31 December 2019)**

| Recurrent step change | 2020 | 2021 | 2022 | 2023 | 2024 | AA5 total |
|---|---|---|---|---|---|---|
| Additional leak survey | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **3.00** |
| New interconnections | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **0.88** |
| Supervisory control and enhanced data acquisition | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **0.83** |
| Security of supply - Pipeline patrol | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **0.49** |
| **Total** | **0.70** | **0.93** | **1.12** | **1.22** | **1.23** | **5.20** |

Source: ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 114, Table 9.15.

482. As outlined at paragraph 445, Synergy submitted that the ERA's conclusions on the step changes applied by ATCO's initial operating expenditure forecast were appropriate as Synergy considered that the need for the proposed step changes had not been adequately justified and in some instances ATCO had failed to demonstrate that these costs should be recovered from consumers through regulated revenue. The ERA has evaluated the step changes in ATCO's revised proposal to establish whether they satisfy rules 74 and 91 of the NGR.

483. The ERA maintains its view from the draft decision that the additional leak survey activities (described at paragraphs 393 to 394) are in accordance with accepted good industry practice. This view is informed by advice from the ERA's technical advisor, EMCa. Based on its review of the updated project brief for this work, which clarifies the drivers for the work and information on the planned activities covered by the step change, EMCa's opinion was that the proposed work is necessary.[222] [223]

484. The proposed amount of the step change for the additional leak survey activities ($3.00 million) would be incurred by a prudent service provider acting efficiently. In the draft decision operating forecast, the ERA included $2.50 million for the additional leak survey activities, which was 50 per cent of the amount proposed by ATCO. The ERA has concluded that the revised proposal of $3.00 million for the additional leak survey activities is an efficient amount based on review of additional information supplied by ATCO in response to the draft decision, including costed

[222] ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information), Attachment 09.103 Project Brief: AA5 Leak Survey and Repair,* 12 June 2019.

[223] Energy Market Consulting Associates, Review of Technical Aspects of the Proposed Access Arrangement, October 2019, paragraph 274.

information on the planned activities. This conclusion is also based on technical advice that the $3.00 million proposed for this work is a reasonable amount.[224]

485. Based on the conclusions that the revised proposed step change for additional leak survey activities would be incurred by a prudent service provider acting efficiently and in accordance with good industry practice, the final decision operating expenditure forecast includes a $3.00 million step change to operating expenditure for additional leak surveys during AA5.

486. The ERA considers that the revised proposed operating expenditure step change of $0.88 million for new interconnections would not be incurred by a prudent service provider acting efficiently and in accordance with accepted good industry practice. This conclusion follows from the ERA's conclusion that the revised proposed capital expenditure for new interconnections during AA5 is not justifiable, as described at paragraphs 1198 to 1210. Given that the ERA has not accepted that this capital meets the criteria to be included in the projected capital base, the associated operating expenditure comprising the proposed operating expenditure step change for new interconnections is not necessary. The final decision operating expenditure forecast therefore does not include an operating expenditure step change for new interconnections.

487. The proposed $0.83 million operating expenditure step change for SCADA activities is associated with the capital expenditure for the automated network pressure control project outlined at paragraphs 1159 to 1165. The ERA has accepted that this capital expenditure meets the criteria for conforming capital expenditure. The ERA has considered the associated operating expenditure and, based on technical advice received, considers this would be incurred by a prudent service provider acting efficiently and in accordance with accepted good industry practice.[225] The final decision operating expenditure forecast therefore includes the proposed operating expenditure step change for the automated network pressure control project.

488. The proposed $0.49 million step change for security of supply described at paragraph 394 is for enhanced security patrols. ATCO stated that the enhanced security patrols replace previously proposed capital expenditure for a security project. Based on the information supplied by ATCO describing the patrol activities covered by the proposed step change, the risks addressed by the proposed step change, and technical advice received from EMCa, the ERA is satisfied that the activities are in accordance with good industry practice and would be incurred by a prudent service provider acting efficiently. The technical advice was that the use of daily security patrols in lieu of the previously proposed capital expenditure for the security project was a reasonable risk mitigation option and the proposed cost of the daily security patrols was reasonable.[226]

489. Table 73 summarises the step changes for recurrent operating expenditure included in the final decision operating expenditure forecast for AA5.

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[224] Energy Market Consulting Associates, Review of Technical Aspects of the Proposed Access Arrangement, October 2019, paragraph 274.

[225] Energy Market Consulting Associates, Review of Technical Aspects of the Proposed Access Arrangement, October 2019, paragraph 276. EMCa's technical advice was that the proposed operating expenditure step change for the automated network pressure control project was reasonable and the project was adequately justified.

[226] Energy Market Consulting Associates, Review of Technical Aspects of the Proposed Access Arrangement, October 2019, paragraph 276.

**Table 73 Final decision - Included step changes for recurrent operating expenditure in AA5 final decision operating expenditure forecast ($ million real as at 31 December 2019)**

| Recurrent step change | 2020 | 2021 | 2022 | 2023 | 2024 | AA5 total |
|---|---|---|---|---|---|---|
| Additional leak survey | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **3.00** |
| Supervisory control & enhanced data acquisition | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | 0.83 |
| Security of supply - Pipeline patrol | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | 0.49 |
| **Total** | **0.70** | **0.83** | **0.93** | **0.93** | **0.93** | **4.31** |

### *ATCO's proposed step changes for non-recurrent network, corporate and IT operating expenditure*

490. The non-recurrent costs which ATCO proposed to include as changes in its revised operating expenditure forecast are shown in Table 74.

**Table 74 Changes for non-recurrent operating expenditure included in ATCO's revised proposed operating expenditure forecast for AA5 ($ million real as at 31 December 2019)**

| Non-recurrent change | 2020 | 2021 | 2022 | 2023 | 2024 | AA5 total |
|---|---|---|---|---|---|---|
| Hazardous areas review and remediation | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **0.77** |
| Pipeline inline inspections | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **0.50** |
| Mains reclassification | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **1.74** |
| AA6 regulatory preparation | - | - | 0.59 | 1.38 | 0.92 | **2.89** |
| **Total** | **0.52** | **0.55** | **1.64** | **1.93** | **1.27** | **5.90** |

Source: ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information),* 12 June 2019, p. 117, Table 9.18.

491. In its revised proposal, ATCO supplied new information on the proposed $0.77 million change for hazardous areas review and remediation activities, including that its 2018 base year operating expenditure included the commencement of hazardous areas remediation activities in relation to [redacted] high risk sites while the additional proposed expenditure is for completing work at those sites and remediation of a further [redacted] sites. Based on this information, and technical advice that the proposed hazardous areas remediation activities are necessary,[227] the ERA concludes that the activities covered by the step change are in accordance with good industry practice and would be incurred by a prudent service provider acting efficiently, consistent with rule 91 of the NGR. The final decision operating expenditure forecast therefore includes a

[227] Energy Market Consulting Associates, Review of Technical Aspects of the Proposed Access Arrangement, October 2019, paragraph 281.

change of $0.77 million for hazardous areas review and remediation activities during AA5.

492. As described at paragraph 404, the proposed non-recurrent change of $0.50 million for additional pipeline inspections is for work that will be carried out in [redacted]. The $3.00 million operating expenditure step change that was included in the ERA's draft decision operating expenditure forecast for pipeline inspection activities was not included in ATCO's revised proposed operating expenditure forecast as ATCO stated that this expenditure was already included in the 2018 base year, with the proposed $0.50 million change in [redacted] representing an additional activity. The ERA considers that the proposed $0.50 million change for pipeline inline inspections described at paragraph 404 would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, consistent with rule 91 of the NGR. This view takes into consideration the advice supplied by EMCa, which stated that the activities covered by the change are part of a scheduled program of work consistent with good industry practice.[228]

493. The ERA is satisfied that the proposed $1.74 million change for mains reclassification described at paragraphs 405 and 406 has been driven by a change in ATCO's obligations under relevant standards. This conclusion is informed by technical advice that standard AS/NZS 4645 now imposes a new obligation on ATCO that necessitates incurring additional operating expenditure.[229] The ERA therefore considers that the mains reclassification activities covered by the proposed change are in accordance with accepted good industry practice. The amount of the change has been evaluated based on a clearer scope of work for the activities covered by the change compared to the scope on which the change was based in ATCO's initial proposal. Based on technical advice that the proposed amount of the change for the mains reclassification activities is reasonable the ERA concludes that the proposed $1.74 million operating expenditure would be incurred by a prudent service provider acting efficiently.[230] The final decision operating expenditure forecast therefore includes a change of $1.74 million for mains reclassification activities.

494. The ERA has considered ATCO's stated reasons for its proposed $2.89 million change for regulatory preparation activities described at paragraph 408 and is not satisfied that the full amount of the proposed change would be incurred by a service provider acting efficiently. While some level of expenditure for regulatory preparation activities is necessary due to the obligations on service providers to submit access arrangement revision proposals and fulfil other regulatory obligations, the amount of the proposed change is above the cost incurred in prior access arrangement periods. The reasons supplied by ATCO for the amount in excess ($0.61 million) of its past revealed costs ($2.27 million) were that it would need to mobilise its regulatory submission project team for an additional 10 months compared to what it was mobilised for during AA4 due to the rate of return review process being earlier and the need to prepare a submission to the ERA on its reference services, which would occur earlier than in previous periods.[231]

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228 Energy Market Consulting Associates, Review of Technical Aspects of the Proposed Access Arrangement, October 2019, paragraph 282.

229 Energy Market Consulting Associates, Review of Technical Aspects of the Proposed Access Arrangement, October 2019, paragraph 283.

230 Energy Market Consulting Associates, Review of Technical Aspects of the Proposed Access Arrangement, October 2019, paragraph 283.

231 ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 117.

495. The ERA is not satisfied that the stated reasons demonstrate that ATCO would need to incur additional costs above those incurred in prior periods. Rather, the activities that ATCO stated the additional $0.61 million would cover are already performed by ATCO and performing those activities at a different time during the access arrangement period would not incur additional costs. This view is aligned with the ERA's technical advisor's view on these costs.[232] The ERA considers that the additional amount of $0.61 million is not consistent with the costs that would be incurred by a prudent service provider, acting efficiently in accordance with rule 91 of the NGR. On the basis of the ERA's conclusion on the regulatory preparation costs, the final decision operating expenditure forecast includes a change of $2.27 million for regulatory preparation activities. The amount of this change is based on the same reasoning as set out in the ERA's draft decision, being that $2.27 million is equal in real terms to the AA5 preparation costs included in the AA4 final decision. This amount is also based on the revealed costs of preparing the access arrangement proposal for the AA4 period.[233]

496. Table 75 summarises the changes for non-recurrent operating expenditure included in the final decision operating expenditure forecast for AA5.

**Table 75 Final decision - Included changes for non-recurrent operating expenditure in AA5 final decision operating expenditure forecast ($ million real as at 31 December 2019)**

| Non-recurrent change | 2020 | 2021 | 2022 | 2023 | 2024 | AA5 total |
|---|---|---|---|---|---|---|
| Hazardous areas review and remediation | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **0.77** |
| Pipeline inline inspections | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **0.51** |
| Mains reclassification | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **1.74** |
| AA6 regulatory preparation | - | - | | 1.22 | 1.06 | **2.27** |
| **Total** | **0.52** | **0.55** | **1.05** | **1.77** | **1.40** | **5.29** |

### *Output growth escalation factor*

497. The ERA maintains its view from its draft decision that inclusion of an output growth escalation factor to account for fluctuations in the scale of ATCO's operations contributes to a reasonable basis for deriving the operating expenditure forecast when using the base-step-trend approach, in line with rule 74(2)(a) of the NGR.

498. The ERA does not, however, consider that the output growth escalation factor applied by ATCO to the revised proposed operating expenditure forecast yields the best forecast or estimate possible in the circumstances, as required by rule 74(2) of the NGR. While the ERA accepts the approach to calculating the output growth escalation factor applied by ATCO, some of the input variables to the calculation of the output growth escalation factor have not been arrived at on a reasonable basis.

[232] Energy Market Consulting Associates, Review of Technical Aspects of the Proposed Access Arrangement, October 2019, paragraph 286.

[233] ERA, Final Decision on Proposed Revisions to the Access Arrangement for the Mid-West and South-West Gas Distribution Systems, 1 July 2015, paragraph 391.

499. The ERA maintains its view from its draft decision that a weighting of 45 per cent on forecast growth in customer numbers and a weighting of 55 per cent on forecast growth in the length of the network are reasonable for the calculation of the output growth escalation factor.

500. As outlined at paragraph 444, Synergy submitted that ATCO's growth in operating expenditure should be consistent with its expected growth in demand, which Synergy stated was low. By placing a weighting on forecast growth in customer numbers the output growth escalation factor reflects expected demand growth.

501. The ERA agrees with ATCO's revised proposal that corporate costs are support services that remain unaffected by an increase in ATCO's customer numbers or growth in the length of the network. The final decision operating expenditure forecast therefore applies the output growth escalation factor to network and IT costs only and not to corporate costs.

502. As outlined at paragraphs 170 to 208, the ERA does not consider that ATCO's revised demand forecast represents the best forecast or estimate possible for customer numbers and network length. The ERA therefore calculated a demand forecast, which estimated that ATCO's total number of customers would grow to 805,752 by the end of AA5. Based on the final decision capital expenditure forecast, the ERA has calculated that ATCO's network will grow to 14,985 kilometres of main by the end of AA5. The final decision operating expenditure forecast applies these estimated customer numbers and number of kilometres of main as inputs to the output growth escalation factor rather than ATCO's revised estimates of the same.

503. As outlined at paragraph 445, Synergy considered that the draft decision conclusions on the output growth escalation applied by ATCO for its initial operating expenditure forecast were appropriate. The only component of the calculation of the output growth escalation in this final decision which differs from the calculation in the draft decision is the estimates of customer numbers and kilometres of main applied.

504. The calculation of the output growth escalation factor, and the resulting value of the output growth escalation included in the final decision operating expenditure forecast, is shown in Table 76.

**Table 76 Final decision operating expenditure forecast - Output growth escalation for AA5**

| | Weighting | 2020 | 2021 | 2022 | 2023 | 2024 | Total |
|---|---|---|---|---|---|---|---|
| Customer numbers growth rate (%) | 45 | 0.49 | 1.04 | 1.27 | 1.61 | 1.79 | - |
| Number of kilometres growth rate (%) | 55 | 0.89 | 0.97 | 1.21 | 1.44 | 1.48 | - |
| Weighted annual real output growth rate (%) | - | 0.71 | 1.00 | 1.24 | 1.52 | 1.62 | - |
| Output growth escalation included in the final decision operating expenditure forecast for AA5 ($ million real as at 31 December 2019) | - | 0.55 | 0.93 | 1.40 | 1.99 | 2.62 | 7.49 |

### *Input growth escalation factor*

505. The ERA maintains the view from its draft decision that inclusion of an input growth escalation factor in the revised operating expenditure forecast to account for increases in input costs above inflation contributes to a reasonable basis for deriving

the operating expenditure forecast when using the base-step-trend approach, in line with rule 74(2)(a) of the NGR.

506. However, the ERA does not consider that the input growth escalation factor applied by ATCO in its revised proposed operating expenditure forecast yields the best forecast or estimate possible in the circumstances, as required by rule 74(2)(b) of the NGR. While the ERA accepts ATCO's approach to calculating the input growth escalation factor, some of the input variables applied have not been arrived at on a reasonable basis.

507. The ERA maintains its view from the draft decision that the weightings proposed by ATCO for labour and materials costs (62 per cent and 38 per cent respectively) are reasonable. These weightings have therefore been applied in calculating the input real growth escalation factor in the final decision operating expenditure forecast.

508. The materials costs included in the 2018 base year are considered efficient. The ERA maintains its view from the draft decision that increases in the cost of materials are not expected to exceed CPI growth during AA5, and therefore the materials cost real growth rate of zero proposed by ATCO has been applied to calculate the input growth escalation factor for the final decision operating expenditure forecast. The ERA's basis for forecasting that the cost of materials will not exceed CPI growth during AA5 remains the same as described for the draft decision (see paragraph 336).

509. The ERA has not applied ATCO's proposed labour cost real growth rate in calculating the input growth escalation factor in the final decision operating expenditure forecast. The ERA accepts the WPI growth data applied by ATCO to calculate the labour cost real growth rate, however, it does not agree with the sector premium for wages growth and inflation rate applied in ATCO's calculation.

510. The ERA maintains its view from its draft decision that the WPI growth data which should be applied as an input to derive the best forecast of labour escalation possible in the circumstances - as required by rule 74 of the NGR - is the most recently available Western Australian Treasury WPI growth data. This data comprises a combination of estimated actual WPI growth, a budget estimate of WPI growth and forward estimates of WPI growth. This aligns with ATCO's revised proposal, which also uses the most recently available Western Australian Treasury WPI growth data as an input to calculating the labour escalation rate for AA5. The Western Australian Treasury WPI growth data applied in the final decision operating expenditure forecast is shown in Table 77.

**Table 77 Wage Price Index data applied to calculate the labour escalation rate applied to the final decision operating expenditure forecast**

| | 2018/19 (estimated actual) | 2019/20 (budget estimate) | 2020/21 (forward estimate) | 2021/22 (forward estimate) | 2022/23 (forward estimate) | Average |
|---|---|---|---|---|---|---|
| Wage Price Index growth (%) | 1.75 | 2.25 | 2.75 | 3.00 | 3.25 | 2.60 |

Source: WA Department of Treasury, *Major Economic Aggregates (online),* [accessed September 2019].

511. As outlined at paragraph 421, ATCO's calculation of its labour cost real growth rate added a growth premium of 0.15 per cent to the WPI for all industries to account for what ATCO viewed as a historical premium for wages growth in the electricity, gas,

water and wastewater sector above the all industries average. This premium was calculated based on historical Australian Bureau of Statistics data for Australia-wide all industries WPI growth and Australian sector-wide WPI growth for the years 2015 to 2018 inclusive. The ERA does not agree that such a premium will exist persistently during AA5.

512. The ERA's conclusion is based on its view, outlined in its draft decision, that a business with no productivity growth is unlikely to sustain real wage growth at above-average rates in the long term. ATCO did not propose a productivity adjustment to its operating expenditure forecast in either its initial or revised forecasts. As outlined at paragraphs 525 to 531, the ERA also has not applied a productivity adjustment in the final decision operating expenditure forecast. While ATCO has presented data according to which a premium has existed historically, reproduced in Figure 9, fundamentally it is not reasonable to expect that wages growth for ATCO will exceed average economy-wide wages growth without increases in ATCO's productivity.

513. It is reasonable to consider that, as submitted by ATCO and ATCO's consultant, if an economic recovery occurs then competition for labour with other sectors such as construction and mining may put pressure on wages within the electricity, gas, water and wastewater sector. However, this is unlikely to occur unless the economic recovery is of such a magnitude that the current slack in the Western Australian labour market is absorbed. The ERA is not satisfied that ATCO has demonstrated that this will occur within AA5 based on presently available forecasts.

514. While the ERA included a 0.2 per cent premium for the electricity, gas, water and wastewater sector above the Western Australian WPI for Western Power's fourth access arrangement (which applies to the years from 1 July 2017 to 30 June 2022), as noted by ATCO, this does not in itself support that a premium will exist for the years during AA5 (2020 to 2024). The final decision on Western Power's fourth access arrangement included a one per cent per year productivity improvement.[234] The inclusion of a sector premium for the electricity, gas, water and waste water sector above the Western Australian WPI in the operating expenditure forecast for Western Power's fourth access arrangement is consistent with the ERA's view that a business is only likely to sustain real wage growth at above-average rates in the long term if it can make productivity improvements. ATCO did not propose a productivity adjustment for AA5 and the ERA also has not applied one in the final decision operating expenditure forecast.

515. Based on the ERA's reasoning and conclusions outlined at paragraphs 512 to 514, the ERA has not applied a premium for the electricity, gas, water and wastewater services sector in calculating the labour escalation rate for the final decision operating expenditure forecast.

516. The ERA does not accept the estimate of inflation applied by ATCO for calculating the labour escalation rate. As stated at paragraph 429, the inflation rate applied by ATCO was calculated according to a breakeven method consistent with the method for estimating inflation set out by the ERA's 2018 Rate of Return Guideline whereas the WPI growth estimate applied by ATCO is based on Western Australian Treasury data.

[234] ERA, *Final Decision on Proposed Revisions to the Access Arrangement for the Western Power Network 2017/18 – 2021/22*, 20 September 2018, paragraphs 384-386.

517. The ERA considers that, when it is possible to obtain WPI data and inflation data from the same source, applying data from the same source yields the best possible forecasts of the labour escalation rate, as is required by rule 74 of the NGR.

518. The WPI measures the change in the price of wage and salary costs between one period and a base period. Inflation and wages generally to some extent bear a causal relationship because workers attempt to maintain or increase the real purchasing power of their compensation through wage increases which compensate for the purchasing power erosion that occurs due to inflation. Inflation can therefore be considered an explanatory variable for wage growth. The method of calculating inflation used by ATCO is not related to the forecast of the Western Australian WPI by the Western Australian Treasury. Using forecast data from the same source on inflation and WPI growth to calculate real labour escalation on the other hand minimises the possibility of differences between inflation estimates from one source and the inflation assumptions implicit in constructing WPI forecasts.

519. The ERA has therefore applied the most recently available Western Australian Treasury CPI data as the measure of inflation for calculating the labour escalation rate applied to the final decision operating expenditure forecast. The Western Australian Treasury CPI growth data applied in the final decision operating expenditure forecast is shown in Table 78. As shown, the time period covered by the CPI growth data applied to calculating the labour escalation rate aligns with the time period covered by the WPI growth data applied (shown in Table 77).

**Table 78 Consumer Price Index data applied to calculate the labour escalation rate applied to the final decision operating expenditure forecast**

| | 2018/19 (estimated actual) | 2019/20 (budget estimate) | 2020/21 (forward estimate) | 2021/22 (forward estimate) | 2022/23 (forward estimate) | Average |
|---|---|---|---|---|---|---|
| Consumer Price Index growth (%) | 1.25 | 1.75 | 2.25 | 2.50 | 2.50 | 2.05 |

Source: WA Department of Treasury, *Major Economic Aggregates (online),* [accessed September 2019].

520. Based on the conclusions outlined at paragraphs 509 to 519, the ERA has calculated that a real labour escalation growth rate of 0.54 per cent is the best estimate of the real labour escalation growth rate that will occur over AA5, consistent with rule 74 of the NGR. A real labour escalation growth rate of 0.54 per cent has therefore been applied to calculating the input growth escalation for the final decision.

521. Table 79 summarises the input growth escalation included in the final decision operating expenditure forecast for AA5.

**Table 79 Final decision operating expenditure forecast – Input cost escalation for AA5**

| | Weighting | 2020 | 2021 | 2022 | 2023 | 2024 | AA5 total |
|---|---|---|---|---|---|---|---|
| Annual labour escalation (%) | 62 | 0.54 | 0.54 | 0.54 | 0.54 | 0.54 | - |
| Materials cost growth rate (%) | 38 | 0 | 0 | 0 | 0 | 0 | - |
| Weighted annual real input cost growth rate (%) | - | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | - |
| Input growth escalation included in the final decision operating expenditure forecast for AA5 ($ million real as at 31 December 2019) | - | 0.36 | 0.54 | 0.73 | 0.93 | 1.11 | **3.66** |

### *Productivity adjustment*

522. The ERA does not agree with ATCO's claim that a productivity adjustment:[235]

- Would not be in the long-term interest of consumers because it would likely adversely affect ATCO's ability to provide a safe and reliable gas service.
- Would not necessarily achieve a sustainable cost of delivering pipeline services.

523. The ERA also agrees with Synergy's submission that inclusion of a productivity adjustment is not inconsistent with the provision of a safe and reliable gas service.[236]

524. The ERA also considers that, as submitted by Synergy, ATCO's submission that a productivity adjustment is not required because ATCO is planning to absorb $2.6 million of network costs during AA5 is not correct. ATCO's absorption of these costs does not in itself mean that incremental productivity improvements would not be made by a service provider operating efficiently and in accordance with good industry practice (consistent with rule 91 of the NGR).

525. Nonetheless, the ERA considers that including a productivity adjustment would not be in the long-term interests of consumers.[237]

526. The ERA did not apply a productivity adjustment to the draft decision operating expenditure forecast because:[238]

- The ERA did not forecast that the scale of ATCO's operations would increase over AA5, and therefore the ERA considered that productivity improvements during AA5 due to economies of scale are unlikely.
- Most of ATCO's proposed capital expenditure for AA5 in its initial proposal was for network sustaining and network growth projects and structures and

[235] ATCO, 2020-24 Revised Plan (Access Arrangement Information), 12 June 2019, p. 124.

[236] Synergy Submission to the Economic Regulation Authority's Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024, 10 July 2019, p. 7.

[237] ATCO, 2020-24 Revised Plan (Access Arrangement Information), 12 June 2019, p. 124.

[238] ERA, *Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024,* 18 April 2019, paragraph 274.

equipment, rather than strategic projects for enhancing the productivity and efficiency of its operations or reducing ATCO's operating cost structure.

527. The final decision now forecasts an increase in the scale of ATCO's operations with the inclusion of new brownfield and greenfield connections, as discussed at paragraphs 168 to 207 and 955 to 998.

528. The ERA considers that the forecast increase in the scale of ATCO's operations does not by itself justify a productivity adjustment. Rather, the ERA's evaluation of whether to include a productivity adjustment in the final decision operating expenditure forecast considers both the size of the forecast increase in the scale of ATCO's operations and whether the projects included in the final decision capital expenditure forecast would achieve technological change likely to materially increase ATCO's operating efficiency.

529. The ERA considers that the forecast increase in the scale of ATCO's operations during AA5 does not by itself justify the inclusion of a productivity adjustment in the final decision operating expenditure forecast.

530. ATCO's revised proposed capital expenditure for AA5 is for network sustaining and network growth projects and structures and equipment, rather than strategic projects to enhance the productivity and efficiency of its operations or reduce ATCO's operating costs. Synergy considered that the absence of strategic projects to enhance productivity or efficiency in AA5 did not necessarily mean that there would be no efficiencies available to ATCO in AA5. Synergy stated that efficiencies during AA5 would be yielded through certain proposed capital expenditure in ATCO's revised proposal including capital expenditure for upgrades to ATCO's IT systems (including SAP), SCADA assets and remote-control capability. The ERA has reviewed the business cases for these projects where they have been included in the final decision capital expenditure forecast to evaluate whether any persistent operating efficiency improvements are likely for ATCO during AA5 given consideration of the planned projects and the forecast scale of ATCO's operations and forecast demand. Based on the information reviewed, including the justification and purpose of the expenditure, the ERA's conclusion is that it is not certain that these projects will yield sufficiently large, ongoing productivity improvements that would justify the inclusion of a productivity adjustment in the operating expenditure forecast.

531. Based on the projects included in the final decision capital expenditure forecast and the final decision forecast increase in scale of ATCO's operations, the ERA considers that applying a productivity adjustment would not satisfy the requirement of rule 74(2) of the NGR that a forecast or estimate must represent the best forecast or estimate possible in the circumstances. The final decision operating expenditure forecast therefore does not include a productivity adjustment.

532. The ERA's decision to not apply a productivity adjustment in ATCO's AA5 operating expenditure forecast is based on the ERA's consideration of a best estimate of productivity changes for ATCO during AA5, as required by rule 74(2). Any future assessments of productivity changes will be based on consideration of the expected circumstances during the period for which productivity changes are being assessed.

***Ancillary services operating expenditure***

533. The ERA maintains the view from its draft decision that the forecast unit rates for ancillary services applied in ATCO's initial operating expenditure forecast, which ATCO subsequently applied in its revised forecast, are efficient. The forecast unit

rates are close to ATCO's current costs for these services, except for special meter reads. For special meter reads, the unit rate applied in ATCO's initial operating expenditure forecast is approximately 31 per cent below ATCO's revealed cost for the same service during 2018.[239] Based on this, the unit rates for ancillary services applied in ATCO's revised operating expenditure forecast are considered to represent the best estimate possible in the circumstances, in line with rule 74(2)(b)of the NGR, and have been included in calculating the ancillary services costs included in the final decision operating expenditure forecast.

534. The ERA considered its technical advisor's recommendation to set the forecast cost for ATCO's special meter reads equal to the second-highest of the sample of eastern states gas distributors referred to in Kleenheat's submission to the draft decision ($10.80).[240] Given that the cost applied by the ERA's technical advisor is based on another service provider operating in a different geographical market, and because the forecast rate applied by ATCO is substantially below its most recent revealed cost for this service, the ERA concluded that the forecast unit cost applied by ATCO represented the best forecast unit cost possible in the circumstances and therefore satisfied rule 74 of the NGR.

535. The forecast volumes for ancillary services included in the final decision demand forecast are shown in Table 20. The ERA considers these are the best forecast possible for ancillary services volumes, as required by rule 74(2)(b) of the NGR. Therefore, these volumes have been applied to calculate the ancillary services operating expenditure included in the final decision operating expenditure forecast. As outlined at paragraph 208, ancillary services across all categories relate mainly to B3 connections. As a result, the forecast volume of ancillary services is correlated to the ERA's forecast growth in B3 customers of 1.51 per cent per year.

536. Table 80 shows the ancillary services operating expenditure included in the final decision operating expenditure forecast for AA5.

[239] ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, *Attachment 16.100 Tariff Model_ERA_DDR_4.0 Submitted_12 June 2019.*

[240] Energy Market Consulting Associates, Review of Technical Aspects of the Proposed Access Arrangement, October 2019, paragraph 294.

**Table 80 Final decision operating expenditure forecast - Ancillary services operating expenditure for AA5 ($ million real as at 31 December 2019)**

| | 2020 | 2021 | 2022 | 2023 | 2024 | AA5 total |
|---|---|---|---|---|---|---|
| Applying a meter lock | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **2.34** |
| Removing a meter lock | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **1.10** |
| Deregistering a delivery point | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **1.39** |
| Disconnecting a delivery point | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **1.82** |
| Reconnecting a delivery point | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **2.07** |
| Special meter reading | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **8.19** |
| Ancillary services operating expenditure included in the revised operating expenditure forecast | 3.29 | 3.33 | 3.37 | 3.43 | 3.49 | **16.92** |

### *UAFG operating expenditure*

537. The ERA maintains its draft decision view that ATCO's proposal to apply a UAFG unit price as determined through a competitive tender to acquire UAFG is consistent with good industry practice and rule 91 of the NGR. The final decision operating expenditure forecast therefore applies the unit prices for UAFG determined through the tender conducted by ATCO. These unit prices are shown in Table 81.

**Table 81 ATCO's UAFG unit costs determined by tender and applied in final decision operating expenditure forecast (real dollars as at 31 December 2019)**

| | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| UAFG unit cost ($/GJ) | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |

*Source: ATCO tariff model submitted 12 June 2019 (Confidential)*

538. The ERA considers that ATCO's revised forecast UAFG rates, which are below the forecast rates in ATCO's initial proposal, are in line with other gas distribution service providers and are therefore considered in line with good industry practice and the UAFG costs that would be incurred by a prudent service provider acting efficiently, as required by rule 91 of the NGR. This conclusion is based on benchmarking information presented by ATCO, which shows that ATCO's revised forecast UAFG rates are at the lower end of UAFG rates across a sample of Australian gas distributors.[241] The UAFG rates proposed by ATCO have therefore been applied in calculating the UAFG costs included in the final decision operating expenditure forecast.

539. This final decision amends ATCO's forecast throughput to 133,796 terajoules in total over AA5. The final decision UAFG forecast is considered the best forecast possible for gas throughput, as required by rule 74(2)(b) of the NGR. This throughput forecast

[241] ATCO, *2020-24 Plan (Access Arrangement Information)*, *Attachment 11.2 UAFG Forecast Strategy*, 31 August 2018.

has therefore been applied to calculate the UAFG operating expenditure included in the final decision operating expenditure forecast.

540. Table 52 shows the UAFG operating expenditure included in the expenditure forecast for AA5 based on the inputs outlined at paragraphs 537 to 539.

**Table 82: Final decision UAFG operating expenditure forecast (units specified by row)**

| | 2020 | 2021 | 2022 | 2023 | 2024 | AA5 total |
|---|---|---|---|---|---|---|
| UAFG rate (%) | 2.45 | 2.43 | 2.40 | 2.39 | 2.37 | - |
| Total throughput (TJ) | 26,815 | 27,115 | 26,767 | 26,430 | 26,362 | 133,489 |
| UAFG operating expenditure included in the final decision operating expenditure forecast ($ million real as at 31 December 2019) | 3.77 | 4.46 | 4.49 | 4.54 | 4.70 | 21.97 |

### *Conclusion*

541. For the reasons and conclusions outlined at paragraphs 452 to 540, the ERA concludes that $321.25 million of ATCO's revised proposed operating expenditure forecast for the fifth access arrangement satisfies rules 74 and 91 of the NGR. The final decision operating expenditure forecast is shown in Table 83 below.

542. The final decision operating expenditure forecast is $4.44 million higher than the draft decision forecast. As stated at paragraph 444, Synergy considered that the average annual operating expenditure increase that was forecast in the draft decision was more in line with the level of operating expenditure growth Synergy would expect to see for ATCO. While the final decision operating expenditure forecast is higher than the ERA's draft decision forecast, the ERA is satisfied based on the analysis outlined at paragraphs 452 to 540 that the final decision operating expenditure forecast satisfies rules 74 and 91 of the NGR.

**Table 83 Final decision operating expenditure forecast ($ million real as at 31 December 2019)**

| | 2020 | 2021 | 2022 | 2023 | 2024 | AA5 total |
|---|---|---|---|---|---|---|
| Base year network, corporate and IT expense | 52.32 | 52.32 | 52.32 | 52.32 | 52.32 | **261.61** |
| **Step changes** | | | | | | |
| Supervisory control & enhanced data acquisition | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **0.83** |
| Additional leak survey | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **3.00** |
| Security of supply - Pipeline patrol | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **0.49** |
| Mains reclassification | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **1.74** |
| Hazardous areas review and remediation | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **0.77** |
| Pipeline inline inspections | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | **0.51** |
| AA6 regulatory preparation | 0.00 | 0.00 | 0.00 | 1.22 | 1.06 | **2.27** |
| Output growth escalation | 0.55 | 0.93 | 1.40 | 1.99 | 2.62 | **7.49** |
| Input growth escalation | 0.36 | 0.54 | 0.73 | 0.93 | 1.11 | **3.66** |
| UAFG | 3.77 | 4.46 | 4.49 | 4.54 | 4.70 | **21.97** |
| Ancillary services | 3.29 | 3.33 | 3.37 | 3.43 | 3.49 | **16.92** |
| **Total** | **61.51** | **62.96** | **64.30** | **65.90** | **66.58** | **321.25** |

**Required Amendment 5**

The operating expenditure used to determine total revenue must reflect the values in Table 83 of this final decision.

## *Opening capital base*

543. 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 opening capital base for the later access arrangement period is to be:

(a) the opening capital base as at the commencement of the earlier access arrangement period adjusted for any difference between estimated and actual capital expenditure included in that opening capital base. This adjustment must also remove any benefit or penalty associated with any difference between the estimated and actual capital expenditure

plus:

(b) conforming capital expenditure made, or to be made, during the earlier access arrangement period;

plus:

(c) any amounts to be added to the capital base under 82, 84 or 86;

less:

(d) depreciation over the earlier access arrangement period (to be calculated in accordance with any relevant provisions of the access arrangement governing the calculation of depreciation for the purpose of establishing the opening capital base); and

(e) redundant assets identified during the course of the earlier access arrangement period; and

(f) the value of pipeline assets disposed of during the earlier access arrangement period.

544. Rule 79 of the NGR sets out the new capital expenditure criteria:

**79 New capital expenditure criteria**

(1) Conforming capital expenditure is capital expenditure that conforms with the following criteria:

(a) the capital 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 providing services;

(b) the capital expenditure must be justifiable on a ground stated in subrule (2).

(2) Capital expenditure is justifiable if:

(a) the overall economic value of the expenditure is positive; or

(b) 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; or

(c) the capital expenditure is necessary:

(i) to maintain and improve the safety of services; or

(ii) to maintain the integrity of services; or

(iii) to comply with a regulatory obligation or requirement; or

(iv) to maintain the service provider's capacity to meet levels of demand for services existing at the time the capital expenditure is incurred (as distinct from projected demand that is dependent on an expansion of pipeline capacity); or

(d) the capital expenditure is an aggregate amount divisible into two parts, one referable to incremental services and the other referable to a purpose referred to in paragraph (c), and the former is justifiable under paragraph (b) and the latter under paragraph (c).

(3) In deciding whether the overall economic value of capital expenditure is positive, consideration is to be given only to economic value directly accruing to the service provider, gas producers, users and end users.

(4) In determining the present value of expected incremental revenue:

(a) a tariff will be assumed for incremental services based on (or extrapolated from) prevailing reference tariffs or an estimate of the

reference tariffs that would have been set for comparable services if those services had been reference services; and

(b) incremental revenue will be taken to be the gross revenue to be derived from the incremental services less incremental operating expenditure for the incremental services; and

(c) a discount rate is to be used equal to the rate of return implicit in the reference tariff.

(5) If capital expenditure made during an *access arrangement period* conforms, in part, with the criteria laid down in this rule, the capital expenditure is, to that extent, to be regarded as conforming capital expenditure.

(6) The [ERA's] discretion under this rule is limited.

545. ATCO's revised proposal also proposes to include some expenditure it incurred during AA4 in a speculative capital expenditure account under rule 84 of the NGR. Rule 84 is as follows:

**84 Speculative capital expenditure account**

(1) A full access arrangement may provide that the amount of non-conforming capital expenditure, to the extent that it is not to be recovered through a surcharge on users or a capital contribution, is to be added to a notional fund (the **speculative capital expenditure account**).

(2) The balance of the speculative capital expenditure account must be adjusted annually by applying to the balance a rate that is the same as the allowed rate of return for the regulatory year in which the adjustment is made.

(3) If at any time the type or volume of services changes so that capital expenditure that did not, when made, comply with the new capital expenditure criteria becomes compliant, the relevant portion of the speculative capital expenditure account (including the return referable to that portion of the account) is to be withdrawn from the account and rolled into the capital base as at the commencement of the next access arrangement period.

## *ATCO's initial proposal*

546. ATCO proposed an opening capital base for AA5 of $1,347.5 million at 1 January 2020.[242] Table 84 details ATCO's opening capital base calculation.

[242] ATCO, *2020-24 Plan* (*Access Arrangement Information)*, 31 August 2018, p. 120.

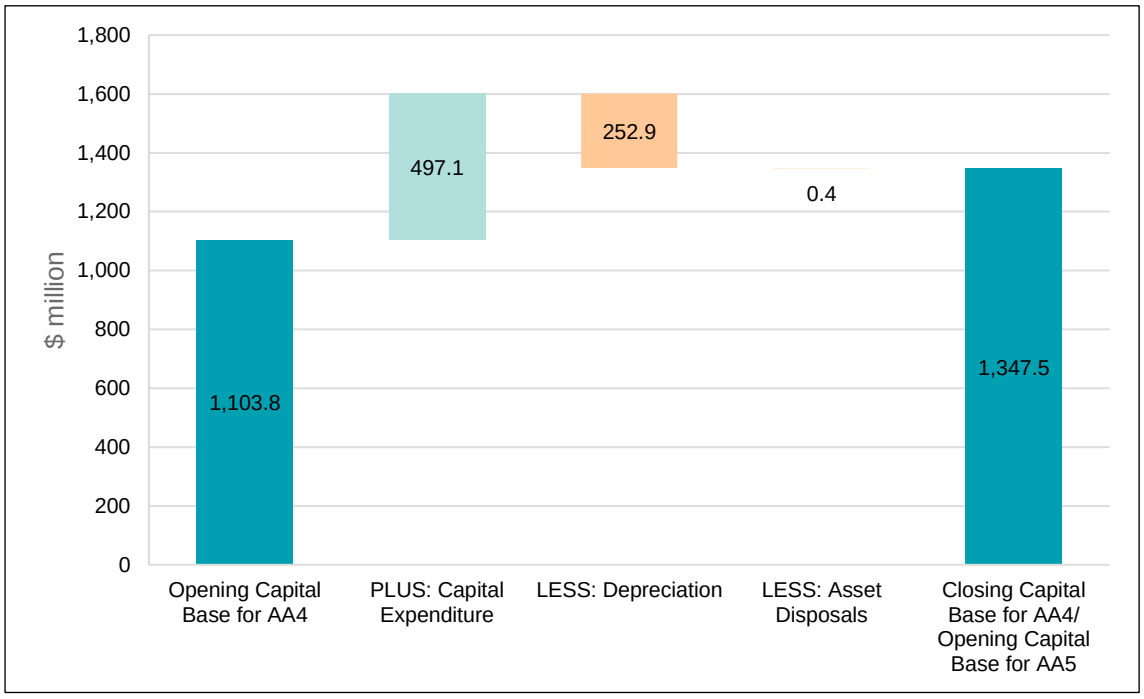
**Table 84: ATCO's closing capital base for AA4 ($ million real as at 31 December 2019)**

| | Jul to Dec 2014 | 2015 | 2016 | 2017 | 2018 (forecast) | 2019 (forecast) |
|---|---|---|---|---|---|---|
| Opening capital base | 1,103.8 | 1,129.6 | 1,170.6 | 1,219.0 | 1,263.9 | 1,312.1 |
| Plus: Capital expenditure | 43.9 | 80.9 | 92.9 | 92.4 | 98.3 | 88.6 |
| Less: Depreciation | 18.1 | 39.9 | 44.3 | 47.3 | 50.1 | 53.2 |
| Less: Asset disposals | 0.0 | 0.0 | 0.2 | 0.2 | - | - |
| **Closing capital base** | **1,129.6** | **1,170.6** | **1,219.0** | **1,263.9** | **1,312.1** | **1,347.5** |

Source: ATCO Gas Australia, *2020-24 Plan (Access Arrangement Information),* p. 121, Table 13.2.

547. ATCO's calculated values of the capital base included $497.1 million of proposed conforming capital expenditure for the AA4 period, less depreciation of $252.9 million and asset disposals of $0.4 million (see Figure 11).

**Figure 11 ATCO's proposed opening capital base for AA5 ($ million real as at 31 December 2019)**




*Source: ATCO Gas Australia, 2020-24 Plan (Access Arrangement Information), Table 13.2, p. 121.*

548. Rule 79 of the NGR sets out the criteria of conforming capital expenditure. Under rule 79(1) 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 industry practice, to achieve the lowest sustainable cost of providing services. Under rules 79(2)(a) to 79(2)(c) of the NGR, conforming capital expenditure must also be justifiable on 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
  - Maintain the service provider's capacity to meet levels of demand for services existing at the time the capital expenditure is incurred.

549. ATCO proposed that the actual and forecast capital expenditure conformed 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.

550. ATCO proposed to add $497.1 million for the AA4 period to the opening capital base for AA5.[243] This proposed capital expenditure was $7 million, or 1.4 per cent, more than the ERA's AA4 final decision forecast.[244]

551. Table 85 shows the ERA's AA4 final decision forecast capital expenditure, ATCO's initial proposed capital expenditure for the AA4 period and the variances by cost driver.

**Table 85: ERA AA4 final decision forecast capital expenditure and ATCO initial proposed conforming capital expenditure for AA4 by cost driver ($ million real as at 31 December 2019)**

| Cost driver category | Jul to Dec 2014 | 2015 | 2016 | 2017 | 2018 (forecast) | 2019 (forecast) | ERA final decision forecast AA4 (A) | Total proposed AA4 (B) | Variation (B - A) |
|---|---|---|---|---|---|---|---|---|---|
| Network sustaining | 14.5 | 32.7 | 42.7 | 50.3 | 51.8 | 44.2 | 228.7 | 236.2 | 7.5 |
| Network growth | 21.9 | 41.3 | 35.2 | 29.4 | 26.5 | 33.1 | 187.2 | 187.4 | 0.2 |
| Information technology | 5.3 | 3.1 | 8.8 | 7.7 | 3.1 | 2.2 | 28.9 | 30.2 | 1.3 |
| Structures and equipment | 2.2 | 3.9 | 6.1 | 5.0 | 16.6 | 8.4 | 44.2 | 42.1 | -2.0 |
| Equity raising costs | - | - | - | - | - | - | 1.1 | 1.1 | 0.0 |
| **Total** | **43.9** | **80.9** | **92.9** | **92.4** | **98.0** | **87.9** | **490.2** | **497.1** | **7.0** |

Source: ATCO, *2020-24 Plan (Access Arrangement Information),* 31 August 2018, p. 34, Table 5.4 *and includes equity raising costs approved in AA4. Some numbers may not add due to rounding.*

[243] ATCO, *2020-24 Plan* (*Access Arrangement Information)*, 31 August 2018, p. 94.

[244] ATCO, *2020-24 Plan* (*Access Arrangement Information)*, 31 August 2018, p. 33.

552. Table 86 shows the ERA's AA4 final decision forecast capital expenditure, ATCO's proposed conforming capital expenditure for the AA4 period and the variation by asset class.

**Table 86: ERA's AA4 final decision forecast and ATCO's proposed conforming capital expenditure for AA4 by asset class ($ million real as at 31 December 2019)**

| Asset class | ERA final decision forecast AA4 (A) | Total proposed 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 | 156.5 | 185.4 | 28.9 |
| Regulators | 11.3 | 16.6 | 5.3 |
| Secondary gate stations | 20.1 | 7.8 | -12.3 |
| Buildings | 14.6 | 17.3 | 2.7 |
| Meter and services pipes | 190.2 | 186.0 | -4.2 |
| Equipment and vehicles | 6.9 | 7.2 | 0.3 |
| Vehicle | 16.3 | 14.0 | -2.3 |
| IT (including telemetry) | 34.0 | 34.5 | 0.5 |
| Land | 6.3 | 3.7 | -2.6 |
| Equity raising costs | 1.2 | 1.1 | -0.1 |
| **Total** | **489.7** | **497.1** | **7.4** |

Source: ATCO, *2020-24 Plan (Access Arrangement Information),* 31 August 2018, p. 33, Table 5.3 *and includes equity raising costs approved in AA4. Some numbers may not add due to rounding.*

## *Draft decision*

553. The ERA assessed ATCO's proposed opening capital base for the AA5 period pursuant to rules 77 and 79 of the NGR. This included:

- determination of ATCO's opening capital base for AA5, considering:
  - conforming capital expenditure in AA4
  - capital contributions
  - depreciation.
- assessment of ATCO's general method to calculate the capital base.

### *Assessment of capital expenditure*

554. EMCa assisted the ERA to assess whether ATCO's actual and proposed capital expenditure during AA4 was conforming capital expenditure that should be rolled into the opening capital base of AA5. This assessment was based on a three-step framework in the NGR:

- Evaluating whether the expenditure was justifiable on the grounds set out in rule 79(2) of the NGR.
- Considering whether the expenditure satisfied the prudent service provider test set out in rule 79(1)(a) of the NGR.
- Assessing whether forecasts or estimates complied with rule 74(2) of the NGR.

555. The ERA reviewed ATCO's governance and management framework with EMCa's assistance and assessed how the framework applied to actual capital expenditure during AA4 and forecast capital expenditure in AA5, focusing on the link between ATCO's application of its asset management process (for example, the Asset Management Plan, Asset Lifecycle Strategies, business cases) and its planned and proposed capital expenditure.

556. ATCO explained that the variances between the ERA's AA4 final decision forecast and the actual expenditure undertaken in AA4 (shown in Table 85) were due to a combination of:

- Prioritisation of replacing high risk metallic mains to ensure a safe and reliable network.
- Postponement of Parmelia Gas Pipeline interconnections.
- Deferral of demand growth projects to align with a slowdown in forecast growth.

557. In its draft decision the ERA assessed that $75.5 million of ATCO's proposed capital expenditure for AA4 was not conforming capital expenditure under rule 79 of the NGR and should not be rolled into the opening capital base of AA5. This was mainly because ATCO did not provide adequate information to justify how its capital expenditure was prudent and efficient under rule 79(1) and rule 79(2) of the NGR.

558. Table 87 shows ATCO's actual and estimated capital expenditure over AA4, the capital expenditure that the ERA concluded in its draft decision was not conforming, and the ERA's draft decision conforming capital expenditure (AA4) by project driver.

**Table 87: ATCO's actual and estimated capital expenditure for AA4 and ERA's draft decision conforming capital expenditure for AA4 by project driver ($ million real as at 31 December 2019)**

| Project category | ATCO's actual & estimated AA4 capital expenditure (A) | Draft decision capital expenditure that is not conforming (B) | Draft decision Conforming capital expenditure for AA4 (A - B) |
|---|---|---|---|
| Network sustaining | 236.2 | 41.5 | 194.7 |
| Network growth | 187.4 | 2.8 | 184.6 |
| Information technology | 30.2 | 1.3 | 28.9 |
| Structures and equipment | 42.1 | 4.4 | 37.7 |
| Overheads capitalisation | - | 25.6 | -25.6 |
| **Total** | **496.0** | **75.5** | **420.5** |

*Source: ATCO, 2020-24 Plan (Access Arrangement Information), 31 August 2018, p. 34, Table 5.4. Some numbers may not add due to rounding.*

### *Network sustaining capital expenditure*

559. The ERA determined in the draft decision that the following network sustaining projects did not satisfy rule 79 of the NGR:

- [redacted] million on unprotected metallic mains.
- [redacted] million on odd size unprotected steel.
- [redacted] million on unplasticised polyvinyl chloride (PVC) mains and services.
- [redacted] million on multi-storey buildings risk reduction.
- [redacted] million on a security of supply project commencing in 2019 and completing in 2020 (the first year of the AA5 period) for Caversham.

560. The ERA concluded in its draft decision that $194.7 million of ATCO's proposed network sustaining capital expenditure for AA4 satisfied the criteria for conforming capital expenditure set out in rule 79 of the NGR. Table 88 shows ATCO's proposed conforming network sustaining capital expenditure, and the ERA's draft decision network sustaining capital expenditure for AA4.

**Table 88: ERA's amended conforming network sustaining capital expenditure (AA4) ($ million real as at 31 December 2019)**

| Capital expenditure – Network sustaining | Jul to Dec 2014 | 2015 | 2016 | 2017 | 2018 (forecast) | 2019 (forecast) | Total |
|---|---|---|---|---|---|---|---|
| ATCO proposed conforming capital expenditure | 14.5 | 32.7 | 42.7 | 50.3 | 51.8 | 44.2 | 236.2 |
| Replacement – unprotected metallic mains | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| Replacement – PVC mains & services | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| Replacement – odd size unprotected steel | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| Multi-storey building risk reduction | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| Security of supply - Caversham | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| **ERA draft decision conforming capital expenditure** | **14.4** | **32.4** | **36.2** | **38.7** | **35.9** | **37.1** | **194.7** |

*Source: ERA's analysis. Some numbers may not add due to rounding.*

### *Unprotected metallic mains*

561. ATCO's initial proposal included proposed AA4 capital expenditure for replacing unprotected metallic mains, which exceeded the ERA's AA4 final decision forecast for replacing unprotected metallic mains by $16.7 million. ATCO's business case for replacing all unprotected metallic mains by the end of 2020, including ageing steel and galvanised iron mains, indicated that ATCO had increased its volume of

replacement mains from [redacted]km included in the AA4 final decision to [redacted]km in 2017.[245]

562. The ERA was not satisfied that ATCO provided sufficient information to explain this increase and how the additional expenditure of $16.7 million satisfied the conforming capital expenditure criteria under rule 79(1)(a) and rules 79(2)(c)(i) and (ii) of the NGR. Specifically, ATCO did not justify why accelerating the replacement of metallic mains during AA4 was considered a prudent decision. In addition, the increased expenditure appeared to be inconsistent with the AA4 final decision, in which ATCO accepted the ERA's view that some replacement works and expenditure could be deferred.[246] $16.7 million of ATCO's proposed AA4 capital expenditure for replacing unprotected metallic mains was therefore not included in the opening capital base for AA5 in the ERA's draft decision.

***Odd size unprotected steel***

563. ATCO's initial proposal included proposed AA4 capital expenditure for replacing odd size unprotected steel which exceeded the ERA's AA4 final decision forecast for replacing odd size unprotected steel by [redacted] million.

564. In its AA4 proposal, ATCO explained that its odd size steel was installed in the 1960s and 1970s as trunk mains to support a wide distribution area. ATCO prioritised these mains for replacement due to the inability to isolate a localised section with standard flow-stopping equipment, particularly in the case of emergency repairs.[247] As most odd size steel trunk mains were constructed without cathodic protection at the time of manufacture, the coating on many of these pipes became ineffective due to their age and subsequently became affected by corrosion and pitting and required replacement.[248]

565. ATCO did not provide adequate information prior to the draft decision to justify the additional costs of [redacted] million. The ERA therefore concluded in its draft decision that the additional expenditure of [redacted] million incurred for odd size unprotected steel replacement did not satisfy the conforming capital expenditure criteria under rules 79(1)(a) and 79(2)(c)(i) of the NGR and this amount was therefore not included in the opening capital base for AA5 in the draft decision.

***PVC mains and services***

566. ATCO's initial proposal included proposed AA4 capital expenditure for replacement of PVC mains and services, which exceeded the ERA's AA4 final decision forecast for replacement of PVC mains and services by [redacted] million.

567. ATCO provided information to explain the reasons that resulted in the additional costs of the PVC mains replacement program, which included the introduction of the Mains Replacement Prioritisation tool, a software package used to predict the risk and condition of plastic mains on the gas distribution system.[249] However the ERA was not satisfied that ATCO had provided adequate information to explain the increase in

[245] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 32.

[246] ERA, as amended 10 September 2015, *Final Decision on Proposed Revisions to the Access Arrangement for the Mid-West and South-West Gas Distribution Systems*, paragraph 623, p. 144.

[247] ATCO, *Access Arrangement Information 1 July 2014 - 31 December 2019 (AA4)*, March 2014, p. 173.

[248] ATCO, *Access Arrangement Information 1 July 2014 - 31 December 2019 (AA4)*, March 2014, p. 173.

[249] ATCO, *PVC Mains Replacement Strategic Analysis & MRP Tool Overview Public*, p. 6.

the PVC mains replacement rate during AA4 and how the accelerated replacement was reflected in its strategy for AA4 prior to the draft decision.

568. As a result, the ERA considered that the additional expenditure of [redacted] million for the PVC mains replacement and services did not satisfy the conforming capital expenditure criteria under rules 79(1)(a) and 79(2)(c)(i) of the NGR and this amount was therefore not included in the opening capital base for AA5 in the draft decision.

***Multi-storey building risk reduction***

569. In its initial proposal ATCO proposed to incur an additional [redacted] million above the ERA's AA4 final decision forecast for the multi-storey building risk reduction project. ATCO provided documents to explain the capital expenditure for the project, how the expenditure complied with the NGR, the management procedures that applied over the course of this project and the cost variance of the project, including locations that required rectification, expenditure and the project timeline during AA4.

570. At an on-site meeting, ATCO explained that the multi-storey building risk reduction project was completed in April 2018, which was about two years later than originally planned.

571. ATCO identified the investment need through a Formal Safety Assessment (FSA) required as part of its Safety Case. A risk-based approach has been used to prioritise the upgrade of infrastructure throughout all the buildings identified with unacceptable risks, in consultation with EnergySafety.

572. ATCO outlined the steps taken to assess, plan and deliver the identified work efficiently, including using a strategic contracting approach and application of a thorough project management methodology.

573. ATCO's explanation appeared to suggest that it had already completed the original project at a total cost of [redacted] million. However, the ERA concluded that ATCO did not adequately explain why the multi-storey building risk reduction project was extended to 2018 with a total cost of [redacted] million. Specifically, ATCO only justified the inclusion of [redacted] million out of [redacted] million but did not explain if the scope of the program was subsequently extended, and how the residual amount of [redacted] million satisfied the capital expenditure criteria under the NGR. The ERA therefore considered that [redacted] million of AA4 capital expenditure for the multistorey building risk reduction program did not satisfy the conforming capital expenditure criteria under rules 79(1)(a) and 79(2)(c)(i) of the NGR and this amount was therefore not included in the opening capital base for AA5 in the draft decision.

***Security of supply project - Caversham***

574. ATCO's initial proposal included [redacted] million of proposed AA4 capital expenditure for a security of supply project commencing in 2019 and due for completion in 2020 for Caversham. ATCO explained that third-party damage to the network pipeline segments within the Caversham region presented a high risk, which required further work to reduce the risk to an acceptable level. The ERA considered however that ATCO's proposed expenditure for this project during AA5 did not satisfy the conforming capital expenditure criteria under rule 79 of the NGR.[250] As a result, the

[250] The ERA considers that ATCO had been overly conservative with its assessment of the risks for the Caversham project and it was not satisfied with ATCO's risk ratings. Refer to paragraphs 451 to 457 of the ERA Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024, 18 April 2019, p. 109.

ERA did not include the proposed capital expenditure of [redacted] million for 2019 to commence the Caversham project in the opening capital base for AA5 in its draft decision.

### *Network growth capital expenditure*

575. ATCO's actual and estimated network growth capital expenditure for AA4 was $0.2 million higher than the ERA's AA4 final decision forecast. ATCO explained the cost variation was largely due to:

- The establishment of new contract rates in 2016 through a competitive tender process where 2017 was the first year. ATCO realised benefits from the contracts.[251]
- A lower growth demand forecast as ATCO deferred various reinforcement projects, which resulted in the refinement of its modelling assumptions. Specifically, ATCO shifted its network growth capital expenditure from demand-related projects to customer-initiated projects in its modelling. This arrangement reflected the lower demand growth over AA4 than expected, and a higher rate of customer connections.

576. The ERA's assessment of ATCO's customer-initiated projects focused on variable volume capital expenditure which comprised the following programs:

- Mains in greenfield subdivisions.
- New connections (commercial and existing subdivisions).
- New connections to domestic customers in new subdivisions – north region and south region.
- Customer-initiated gas feeders and gas mains.

577. The ERA assessed ATCO's Net Present Value (NPV) model for its AA4 network growth projects and reviewed ATCO's assumptions applied to the NPV model and the assessment of these assumptions made by EMCa.

578. The assumptions used by ATCO for its AA4 NPV calculations were significantly different from those used in the AA5 NPV model:

- ATCO assumed a considerably higher volume per B3 connection than the volume that it applied to its AA5 growth NPV model. This reflected the declining trend in consumption per B3 connection since AA4.
- ATCO used lower connection costs in its AA4 NPV model compared to its AA5 NPV model. For example, ATCO assumed a weighted average of [redacted] per B3 connection for meters and services, compared with [redacted] in its AA5 model.
- ATCO applied lower incremental maintenance cost assumptions in its AA4 NPV model compared to its AA5 model. For example, ATCO assumed an incremental operating cost of [redacted] per customer per year for the AA4 period, compared with [redacted] per customer per year during AA5. This reflected a change to the method used to calculate the incremental operating expenditure. ATCO provided its workings for the AA5 method which were robust.

[251] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 34.

579. The ERA considered that the following adjustments should be made to assess whether the AA4 new connections met the incremental revenue test as required by rule 79(2)(b) of the NGR:

- Excluding ATCO's assumed new connections at Kalgoorlie and Albany from the model, as both areas are not part of the GDS.
- Excluding the conversion of sub-meter to master meter from the model, which added materially to the modelled cash flow.
- Revising volume per B2 and B3 connection, B3 connection costs and incremental maintenance costs per B3 customer to ensure the same assumptions applied to both AA4 and AA5 network growth NPV tests, as ATCO used inconsistent numbers in its AA4 and AA5 models.

580. After revising ATCO's modelling assumptions as discussed at paragraph 579, the ERA's assessment demonstrated a positive cash flow for a few years within the first 25-year timeframe, but showed a negative cash flow for almost 10 years afterwards. The cash flow only became positive again in the 35th year and thereafter.[252] ATCO calculated its NPVs for a 60-year timeframe, assuming that customer use of the gas pipeline network and costs for replacing meters and services would remain almost constant within this very long timeframe.

581. While most of ATCO's network growth projects demonstrated a positive NPV over the assessment period, the ERA considered that the $[redacted] million sub-meter to master meter program and the [redacted] million from ATCO's Murdoch Drive reinforcement project should not be rolled into the regulatory asset base of AA5 for the following reasons:

- The [redacted] million sub-meter to master meter program was not included in the ERA's AA4 final decision forecast. This program was not related to the new connection expenditure over AA5 and did not represent new services that needed to be provided.
- ATCO did not provide adequate information to justify that the [redacted] million capital expenditure for the sub-meter to master meter program was conforming capital expenditure under rule 79 of the NGR.
- ATCO did not adequately explain the [redacted] million proposed AA4 capital expenditure for the Murdoch Drive reinforcement project, which was not included in the ERA's AA4 final decision forecast. The ERA was not satisfied that this expenditure satisfied the capital expenditure criteria under rule 79 of the NGR.

582. The ERA considered that $184.6 million of ATCO's proposed AA4 network growth capital expenditure satisfied the criteria for conforming capital expenditure under rule 79 of the NGR and should be rolled into the regulatory asset base for AA5.

583. Table 89 shows the ERA's draft decision network growth conforming capital expenditure for AA4.

[252] EMCa, *Review of Technical Aspects of the Proposed Access Arrangement final report*, March 2019, p. 127.

**Table 89: ERA's draft decision conforming network growth capital expenditure for AA4 ($ million real as at 31 December 2019)**

| Capital expenditure – Network growth | Jul to Dec 2014 | 2015 | 2016 | 2017 | 2018 (forecast) | 2019 (forecast) | Total |
|---|---|---|---|---|---|---|---|
| ATCO proposed conforming capital expenditure | 21.9 | 41.3 | 35.2 | 29.4 | 26.5 | 33.1 | 187.4 |
| Sub-meter to master meters | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| Reinforcement – Murdoch Drive | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| **ERA draft decision conforming capital expenditure** | **21.9** | **41.3** | **37.5** | **27.3** | **24.6** | **32.1** | **184.7** |

*Source: ERA analysis. Some numbers may not add due to rounding.*

### *Structures and equipment capital expenditure*

584. ATCO's proposed AA4 capital expenditure for structures and equipment for AA4 was $2.0 million higher than the ERA's AA4 final decision forecast. While the total variance was relatively small, the ERA observed a relatively large movement in the cost of two projects, being the Jandakot warehouse and training facility and the Clean Energy Innovation Hub.

585. The ERA determined in the draft decision that a total of $4.4 million for structures and equipment capital expenditure did not meet the capital expenditure criteria under rule 79 of the NGR. The non-conforming capital expenditure included the Jandakot warehouse and training facility ($2.9 million), Clean Energy Innovation Hub ($1.5 million) and blue flame kitchen ($0.1 million).

586. The ERA concluded that $37.7 million of ATCO's proposed AA4 structures and equipment capital expenditure was conforming capital expenditure and should be rolled into the regulatory asset base in AA5. Table 90 shows the ERA's draft decision structures and equipment conforming capital expenditure for AA4.

**Table 90: ERA's draft decision conforming structures and equipment capital expenditure for AA4 ($ million real as at 31 December 2019)**

| Capital expenditure – Structures and equipment | Jul to Dec 2014 | 2015 | 2016 | 2017 | 2018 (forecast) | 2019 (forecast) | Total |
|---|---|---|---|---|---|---|---|
| ATCO proposed conforming capital expenditure | 2.2 | 3.9 | 6.1 | 5.0 | 16.6 | 8.4 | 42.1 |
| Jandakot warehouse and training facility | 0.0 | 0.0 | 0.0 | 0.3 | -3.2 | 0.0 | -2.9 |
| Clean Energy Innovation Hub | 0.0 | 0.0 | 0.0 | 0.0 | -1.5 | 0.0 | -1.5 |
| Blue flame kitchen | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 |
| **ERA draft decision conforming capital expenditure** | **2.1** | **3.9** | **6.1** | **5.3** | **11.9** | **8.4** | **37.7** |

*Source: ERA analysis. Some numbers may not add due to rounding.*

### *Jandakot warehouse and training facility*

587. The Jandakot warehouse and training facility was the final phase of the Jandakot redevelopment project, which commenced during the third access arrangement period (AA3). ATCO expected to incur [redacted] million to complete the warehouse redevelopment ([redacted] million) and build a training facility ([redacted] million). The total capital expenditure of [redacted] million exceeded the ERA's AA4 final decision forecast by [redacted] million.

588. In its initial proposal, ATCO described that the warehouse redevelopment project was required to upgrade the operational facilities of its Jandakot depot to ensure compliance with occupational health and safety requirements.[253] However, there was limited information available on the proposed training centre in ATCO's initial proposal.

589. ATCO's business case for its warehouse and training centre did not adequately respond to concerns raised in the ERA's AA4 final decision, specifically why the additional expenditure satisfied the capital expenditure criteria under rule 79 of the NGR. As a result, the ERA considered that the additional expenditure of [redacted] million incurred for the Jandakot warehouse and training facility did not satisfy the conforming capital expenditure criteria under rules 79(1)(a) and 79(2)(c) of the NGR for AA5.

### *Clean Energy Innovation Hub*

590. In its initial proposal, ATCO proposed AA4 capital expenditure of [redacted] million for establishing a Clean Energy Innovation Hub at its Jandakot site. ATCO explained that the project aimed to investigate and demonstrate how cleaner energy sources and energy storage could be integrated into an effective energy grid by combining gas, electricity and heat for use in homes and industry.[254] ATCO provided a business case to explain that it expected the construction of the hub to be complete by 2019.

[253] ATCO, *Access Arrangement Information 1 July 2014 - 31 December 2019 (AA4)*, March 2014, p. 151.

[254] ATCO, *2020-24 Plan Access Arrangement Information for Mid-West and South-West Gas Distribution Systems*, 31 August 2018, p. vii.

The Australian Renewable Energy Agency contributed [redacted] million to support this project.[255]

591. The ERA concluded in its draft decision that the Clean Energy Innovation Hub project appeared to be a research and development project mainly for marketing purposes. The ERA considered that ATCO had not justified how the capital expenditure for this project satisfied any of the capital expenditure criteria under rule 79 of the NGR. As a result, the ERA determined that the proposed AA4 capital expenditure of [redacted] million for this project was not conforming capital expenditure and should not be rolled into the regulatory asset base in AA5.

***Blue Flame Kitchen***

592. In its draft decision, the ERA concluded that ATCO's Blue Flame Kitchen was primarily positioned as a marketing project and learning facility for primary school children. The ERA concluded that ATCO had not adequately justified why its proposed AA4 capital expenditure of [redacted] million for this project was conforming capital expenditure under rules 79(1)(a) and 79(2)(c) of the NGR and that this expenditure should therefore not be rolled into ATCO's regulatory asset base.[256]

### *Information technology capital expenditure*

593. ATCO's proposed AA4 IT capital expenditure was $1.3 million higher than the ERA's AA4 final decision forecast. While the total variance was relatively small, the ERA observed a relatively large movement in the cost of three projects. These projects included [redacted] million on the Springboard program, [redacted] million on asset management optimisation and [redacted] million on the Geographical Information Systems (GIS) upgrade. In its initial proposal, ATCO explained that the GIS upgrade was a collection of applications and databases for its network design.

594. ATCO demonstrated how the Springboard program delivery was aligned with ATCO's investment governance framework. The Springboard program comprises a task management system, strategic asset management and management information system. The ERA reviewed the justification for the Springboard program and was satisfied that the program aligned with good practice and ATCO's approval of this program aligned with the investment governance framework.

595. However, the ERA considered that ATCO had mistakenly included asset management optimisation ([redacted] million) and the GIS upgrade ([redacted] million) in its proposed AA4 conforming capital expenditure. As these projects are part of ATCO's AA5 projects (asset management optimisation) or expected to commence during AA5 (GIS upgrade), the ERA considered that these programs should not be included in ATCO's proposed conforming capital expenditure for AA4. As a result, the ERA determined that $1.3 million of ATCO's proposed AA4 IT capital expenditure did not meet the criteria for conforming capital expenditure under rule 79 of the NGR.

596. The ERA concluded that $28.9 million of ATCO's proposed AA4 information technology capital expenditure was conforming capital expenditure and should be rolled into ATCO's regulatory asset base in AA5. Table 91 shows the ERA's draft decision information technology conforming capital expenditure for AA4.

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255 EMCa, *Review of Technical Aspects of the Proposed Access Arrangement final report*, March 2019, p. 60.

256 ERA, *Final Decision on Proposed Revisions to the Access Arrangement for the Mid-West and South-West Gas Distribution Systems, 30 June 2015*, p. 121.

**Table 91: ERA's draft decision conforming information technology capital expenditure for AA4 ($ million real as at 31 December 2019)**

| Capital expenditure – Information Technology | Jul to Dec 2014 | 2015 | 2016 | 2017 | 2018 forecast | 2019 forecast | Total |
|---|---|---|---|---|---|---|---|
| ATCO's proposed conforming capital expenditure | 5.3 | 3.1 | 8.8 | 7.7 | 3.1 | 2.2 | 30.2 |
| Asset management optimisation | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | [redacted] | [redacted] |
| GIS upgrade | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | [redacted] | [redacted] |
| **ERA amended conforming capital expenditure** | **5.3** | **3.1** | **8.8** | **7.7** | **3.1** | **0.9** | **28.9** |

*Source: ERA's analysis. Some numbers may not add due to rounding.*

### *AA4 overhead capitalisation*

597. ATCO defined overheads as "all the necessary indirect costs of delivering the capex program, except for the labour and materials costs that can be directly allocated. Overhead costs are not directly attributable to capex projects and activities via a source document such as a work order, invoice or a timesheet, but are incurred as a result of delivering the capex program."[257]

598. ATCO advised that it changed its overheads capitalisation method during the AA4 period.[258] In the first quarter of 2018, ATCO introduced a time writing tool which enabled office staff and field supervisors to allocate hours to both capital expenditure and operating expenditure projects. This enabled ATCO to capture direct and indirect labour costs separately.

599. Before the introduction of a time writing tool, ATCO's overhead capitalisation system allocated direct labour costs to be part of its reported overhead costs. As a result, ATCO's actual reported capitalised overhead value represented the estimated value of direct labour hours (rather than the actual hours) and true overheads (indirect costs) during AA3 and AA4 (until December 2017).

600. Table 92 summarises the overhead capitalisation in AA3, AA4 and AA5. As shown, ATCO's actual capitalised overhead was broadly in line with the ERA's AA3 final decision. Under ATCO's revised capitalisation method that applied during AA4, ATCO's capitalised overheads were $75.91 million, equivalent to 23.5 per cent of its "capital expenditure attracting overheads", or 8.5 per cent more than the ERA's AA4 allowance of 15.0 per cent.

601. By capitalising its overheads at a higher rate, ATCO proposed to roll the relevant operating expenditure that was included in AA4 tariffs into the regulatory asset base (that is, the estimated value of direct labour costs during AA4 under ATCO's previous overheads capitalisation method). The transfer of operating expenditure to conforming capital expenditure (and the regulatory asset base) has the effect of recovering this expenditure again over the life of the asset. This would result in customers paying twice for the recovery of this expenditure, which is inconsistent with the national gas objective. This regulatory accounting movement from operating

[257] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 116.

[258] At the ATCO onsite meeting; further information provided by ATCO in response to EMCa42 and EMCa43.

expenditure to capital expenditure partly explains ATCO's reduced operating expenditure.

602. Based on the actual capital expenditure attracting overheads of $323 million during AA4, the additional capitalised overhead is around $27.6 million. After excluding the project-based overhead adjustment of $2.0 million, the ERA determined that a total of $25.6 million of overhead did not meet the capital expenditure criteria.

**Table 92: ERA's draft decision summary of overhead capitalisation in AA3, AA4 and AA5 driver ($ million real as at 31 December 2019)**

| | AA3 allowance | AA3 actual | AA4 allowance | AA4 actual | AA5 forecast |
|---|---|---|---|---|---|
| Capital expenditure attracting overheads | 251.6 | 233.1 | 383.1 | 323.0 (a) | 376.2 |
| Overhead (%) | 15.0 | 14.2 | 15.0 (b) | 23.5 (c) | 16.5 |
| Difference (c-b) (%) | - | - | - | 8.5 (d) | |
| Additional overheads in AA4 (a x d) | | | | 27.6 | |
| Less overhead included in the project-based adjustment | | | | 2.0 | |
| Overhead capitalisation adjustment | | | | 25.6 | |

*Source: ATCO response to EMCa42; ERA analysis based on the ERA's approved overhead rate of 15 per cent in AA3 and AA4*

### *Draft decision required amendments - overview*

603. The ERA's draft decision determined that:

- $421.6 million (85 per cent) of ATCO's proposed AA4 capital expenditure complied with the criteria set out in rule 79 of the NGR and could be included in the opening value of the asset base for AA5.
- $49.9 million (9.9 per cent) of ATCO's proposed AA4 capital expenditure did not comply with the criteria set out in rule 79 of the NGR and should not be included in the opening value of the asset base for AA5.
- $25.6 million (5.2 per cent) of ATCO's proposed AA4 capital expenditure, consisting of capitalised overhead, did not comply with the criteria set out in rule 79 of the NGR and should not be included in the opening value of the asset base for AA5.

604. The $421.6 million of ATCO's proposed AA4 capital expenditure which the ERA determined was conforming capital expenditure comprised the following capital expenditure less a $25.6 million adjustment representing capitalised overhead distributed across these asset classes:

- $194.7 million on network sustaining capital expenditure
- $184.7 million on network growth capital expenditure
- $28.9 million on IT capital expenditure
- $37.7 million on structures and equipment capital expenditure
- $1.1 million on equity raising costs

605. Table 93 shows the ERA's draft decision conforming capital expenditure for AA4 by project driver.

**Table 93: ERA's draft decision conforming capital expenditure by AA4 project driver ($ million real as at 31 December 2019)**

| | Jul to Dec 2014 | 2015 | 2016 | 2017 | 2018 forecast | 2019 forecast | Total |
|---|---|---|---|---|---|---|---|
| **ATCO proposed conforming capital expenditure (a)** | **43.9** | **80.9** | **92.9** | **92.4** | **98.0** | **87.9** | **496.0** |
| Sustaining amendments | -0.2 | -0.2 | -6.5 | -11.6 | -15.9 | -7.1 | -41.5 |
| Growth amendments | 0.0 | 0.0 | 2.2 | -2.0 | -2.0 | -1.0 | -2.8 |
| Structures and equipment amendments | 0.0 | 0.0 | 0.0 | 0.3 | -4.6 | 0.0 | -4.4 |
| Information technology amendments | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -1.3 | -1.3 |
| **Total proposed reductions (b)** | **-0.2** | **-0.2** | **-4.3** | **-13.3** | **-22.5** | **-9.4** | **-49.9** |
| Equity raising costs (c) | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.8 | 1.1 |
| **ERA amended conforming capital expenditure (by project) (a+b+c)** | **43.7** | **80.7** | **88.6** | **79.1** | **75.8** | **79.3** | **447.1** |
| Overhead capitalisation adjustment | -1.2 | -7.7 | -7.5 | -6.5 | -0.9 | -1.9 | -25.6 |
| **Total ERA amended conforming capital expenditure** | **42.5** | **73.0** | **81.1** | **72.6** | **74.9** | **77.4** | **421.6** |

*Source: ERA, Draft Decision Appendix 4, GDS Tariff Model, April 2019.* Some numbers may not add due to rounding.

606. Table 94 breaks down the ERA's amended conforming capital expenditure for AA4 by asset class.

**Table 94: ERA's draft decision amended conforming capital expenditure by AA4 asset class ($ million real as at 31 December 2019)**

| Asset class | Jul to Dec 2014 | 2015 | 2016 | 2017 | 2018 forecast | 2019 forecast | Total |
|---|---|---|---|---|---|---|---|
| High pressure mains – steel | 0.8 | 0.5 | 4.6 | 4.7 | 4.4 | 1.9 | 16.9 |
| High pressure mains – polyethylene (PE) | 0.7 | 1.5 | 0.6 | 0.5 | 0.1 | 0.0 | 3.4 |
| Medium and low pressure mains | 14.1 | 31.8 | 28.8 | 23.3 | 18.5 | 25.3 | 141.8 |
| Regulators | 1.5 | 2.6 | 4.1 | 4.9 | 2.1 | 0.2 | 15.5 |
| Secondary gate stations | 0.0 | 0.0 | 0.0 | 0.2 | 2.1 | 5.3 | 7.6 |
| Buildings | 0.2 | 0.4 | 0.6 | 1.6 | 7.2 | 4.0 | 14.0 |
| Meter and services pipes | 18.1 | 29.8 | 27.8 | 26.2 | 31.2 | 34.2 | 167.3 |
| Equipment and vehicles | 0.4 | 1.1 | 1.0 | 1.0 | 1.4 | 0.6 | 5.4 |
| Vehicles | 1.5 | 1.3 | 2.2 | 2.1 | 3.3 | 3.6 | 14.0 |
| Information technology (including telemetry) | 5.2 | 3.0 | 9.0 | 7.8 | 4.5 | 1.5 | 31.0 |
| Land | 0.0 | 0.9 | 2.4 | 0.4 | 0.0 | 0.0 | 3.7 |
| Equity raising costs | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.8 | 1.1 |
| **ERA amended conforming capital expenditure by asset class** | **42.5** | **73.0** | **81.1** | **72.6** | **74.9** | **77.4** | **421.6** |

*Source: ERA's analysis. Some numbers may not add due to rounding.*

607. ATCO used the straight line method to calculate the depreciation on its regulatory asset base for AA4. The current cost accounting approach is consistent with the criteria under rule 89(1) of the NGR, and complied with the NGL (see the depreciation chapter).

608. Table 95 shows the ERA's draft decision amended values for calculating the opening capital base for AA5. The ERA required that the opening capital base at 1 January 2020 be amended to $1,271.1 million.

**Table 95: ERA's draft decision amended opening capital base at 1 January 2020 ($ million real as at 31 December 2019)**

| | Jul to Dec 2014 | 2015 | 2016 | 2017 | 2018 forecast | 2019 forecast |
|---|---|---|---|---|---|---|
| Opening capital base AA4 | 1,102.59 | 1,126.96 | 1,160.15 | 1,196.86 | 1,222.01 | 1,246.88 |
| Plus: Capital expenditure | 42.45 | 73.05 | 81.12 | 72.62 | 74.93 | 77.39 |
| Less: Depreciation | (18.04) | (39.84) | (44.21) | (47.25) | (50.07) | (53.18) |
| Less: Asset disposals | (0.04) | (0.02) | (0.20) | (0.21) | - | - |
| **Opening capital base for AA5** | **1,126.96** | **1,160.15** | **1,196.86** | **1,222.01** | **1,246.88** | **1,271.09** |

*Source: ERA analysis. Some numbers may not add due to rounding.*

**Draft Decision Required Amendment 7**

ATCO must amend the opening capital base (real) at 1 January 2020 to reflect the values set out in Table 53 of this draft decision.

## *ATCO's response to the draft decision*

609. In its revised proposal, ATCO proposed that $484.8 million of its AA4 capital expenditure met the criteria in rule 79 of the NGR for conforming capital expenditure.[259] This was $63.3 million higher than the amount of AA4 capital expenditure included in the AA5 opening capital base in the ERA's draft decision.

610. ATCO's $484.8 million of proposed revised AA4 capital expenditure was $12.3 million less than the capital expenditure that proposed to be rolled into the AA5 opening capital base in ATCO's initial proposal. The difference was due to:[260]

- Reductions in the estimated amount of certain capital expenditure items due to 2018 actual data becoming available after ATCO's initial proposal.
- A reduction in the capitalised overhead ATCO proposed to include in the AA5 opening capital base. ATCO did not accept the ERA's draft decision that $25.6 million of capitalised overhead did not meet the criteria for conforming capital expenditure. ATCO's revised proposal included a capitalised overhead value of $50.7 million, which was $9 million less than the capitalised overhead included in its initial proposal.
- ATCO accepting that the proposed $0.1 million of capital expenditure for the Blue Flame Kitchen was not conforming capital expenditure. In its revised proposal ATCO proposed to add the AA4 capital expenditure for this project to a speculative capital expenditure account.

### *Network sustaining capital expenditure*

611. ATCO did not accept the ERA's conclusion in its draft decision that $41.5 million of ATCO's proposed AA4 network sustaining capital expenditure did not satisfy the criteria for conforming capital expenditure under rule 79 of the NGR. In its revised

[259] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 24.

[260] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, pp. 25-55.

proposal, ATCO proposed $228.6 million of network sustaining capital expenditure for AA4.[261]

***Unprotected metallic mains[262]***

612. In its revised proposal ATCO proposed expenditure of $66.0 million for this program, which was $16.7 million above the ERA final decision AA4 allowance of $49.3 million.

613. ATCO proposed that all AA4 capital expenditure associated with the replacement of metallic mains was prudent and satisfied the conforming capital expenditure criteria under rule 79(1)(a) and rules 79(2)(c)(i) and (ii) of the NGR as established by the relevant business cases and capital expenditure appropriation requests. In its AA4 proposal, ATCO proposed a replacement schedule for the metallic mains that spread the task over all five-and-a-half years of AA4.

614. During AA4, ATCO replaced [redacted] km more metallic mains than the length included in the AA4 forecast ([redacted] km). This was due to identifying opportunities for more efficient delivery (for example, bringing forward and bundling projects that were in the same suburb). ATCO stated that this was also due to the inclusion of meterage that was unforeseen (and unforeseeable) at the time of preparation of the AA4 forecasts.

615. ATCO stated that changes in unit costs were another reason for the overspend. ATCO explained that unit cost assumptions relied on historical volumes and capital expenditure, the contractual arrangements and composition of the projects (amongst other factors) changed markedly. More recently in 2019, a higher number of smaller projects (replacement of small segments of metallic mains and hard-to-reach assets that are expensive to replace on a per meter measure) resulted in higher unit costs.

**Table 96: Approved and actual annual metallic mains replacement volumes km/year (AA4)**

| | Jul to Dec 2014 | 2015 | 2016 | 2017 | 2018 | 2019 (forecast) | Total |
|---|---|---|---|---|---|---|---|
| AA4 approved forecast | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| AA4 actual/forecast | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| Variance | -0.1 | 0.2 | -5.3 | 11.6 | 23.8 | -16.4 | 13.9 |

*Source: ATCO* 2020-24 Revised Plan *Access Arrangement Information for ATCO's Mid-West and South-West Gas Distribution System, 12 June 2019, p. 26, Table 5.8.*

616. In ATCO's response to the draft decision, ATCO noted that the higher than forecast mains replacement activity in 2017 and 2018 was in part due to projects being brought forward to align with other projects to take advantage of operational and cost efficiencies, as well as to minimise disruption to the community.

617. According to ATCO, in the case of Bentley and Morley, opportunities for savings to replace the mains at the same time eventuated. Instead of connecting into remaining steel mains and returning in the future to complete the metallic mains replacement as a discrete project both projects were undertaken at the same time.

618. Variances in metallic mains replacement costs arose in part due to inaccurate historical records where metallic mains extend further than drawings indicated.

[261] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 25.

[262] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, pp. 25-28.

Additionally, changes in roads, street frontage and other infrastructure since the metallic mains were installed also resulted in variances.

**Table 97: Forecast (implied) and actual unit costs for metallic mains**

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Total |
|---|---|---|---|---|---|---|---|
| AA4 forecast implied unit rates ($/m) | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| AA4 actual unit rates ($/m) | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| Variance (%) | 3% | 17% | 44% | 19% | 5% | 51% | 14% |

*Source: ATCO 2020-24 Revised Plan Access Arrangement Information for ATCO's Mid-West and South-West Gas Distribution System, 12 June 2019, p. 27, Table 5.9.*

### *Odd size unprotected steel*[263]

619. ATCO expected to incur $[redacted] million capital expenditure for the end-of-life replacement of odd sized unprotected steel, being $[redacted] million above the ERA allowance of $[redacted] million in the AA4 final decision.

620. ATCO proposed that this expenditure was conforming capital expenditure under rule 79(1)(a) and rules 79(2)(c)(i) and (ii), as established by the relevant business cases and capital expenditure appropriation requests.

621. The reason for the variance between ATCO actual expenditure and the AA4 ERA final decision was an increase in the cost of delivering the program, primarily due to original AA4 cost estimates being based on projects that turned out to be unrepresentatively simple and considerably less expensive to implement. AA4 cost estimates were based on historical unit rates from odd sized unprotected steel replacement projects in East Perth, Kings Park, Tuart Hill and Maylands.

622. The estimated number of services was based on ATCO's experience, that odd size unprotected steel mains were historically designed with limited service connections. Though not anticipated during the development of the AA4 forecasts, ATCO encountered increasing proportions of service replacements in AA4 that increased the unit cost of mains replacements.

623. ATCO did not expect to have many services connected to the assets that were being replaced because the main was duplicated by a PVC asset that would, under typical network planning arrangements, have taken most of the service connections. Some mains were found to have numerous services connections, increasing the required service relay rate from 180 metres to every 20 metres on average.

624. Other factors driving higher than expected costs of works included increased traffic management costs including night works, complexity of the area such as hard ground conditions and reinstatement requirements due to mains locations (under roads and footpaths).

[263] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, pp. 28-29.

### *PVC mains and services*[264]

625. ATCO expected to incur $24.6 million capex for replacement of PVC mains and services, which was $12.2 million higher than the ERA allowance in the AA4 final decision.

626. ATCO considered that this expenditure was conforming capital expenditure under rule 79(1)(a) and rules 79(2)(c)(i) and (ii) of the NGR.

627. Actual AA4 expenditure (including 2019 forecast capex) was forecast to be $20.5 million, all of which was supported by confidential business cases and capital expenditure appropriation requests. The reason for the variance was a significant increase in the volume of replacements delivered, relative to forecast, due to the emergence of a higher rate of leaks in some PVC assets and the opportunities for more efficient delivery identified during AA4.

628. ATCO submitted that although the rate of PVC replacement was higher than originally forecast, individual projects were carried out in accordance with specific business cases, so ATCO considered that it prudently managed the increased level of investment and outlined the reasons for it.[265]

629. The PVC mains and services replacement program started in 2015, driven by the operational risks arising from ageing pipes reaching their service lifetime and resulting in increasing leak rates. In 2017, the PVC network had the highest reported leak rate on the GDS at 0.057 leaks per km, followed by steel (0.047 leaks per km). This compares to 0.008 leaks per km for polyurethane (PE) pipe.

630. ATCO submitted that the actual costs to deliver the PVC Replacement Program over AA4 exceeded the ERA approved AA4 forecast and that this was entirely explained by reference to increased replacement volumes. ATCO submitted that the extent of the overspend relative to the forecast was far less than it would have been had ATCO not achieved considerable reductions in the unit cost of asset replacement relative to the assumptions underpinning the ERA approved forecast.

### *Multi-storey building risk reduction*[266]

631. ATCO expected to incur $[redacted] million capex for risk reduction in multi-storey buildings. The ERA noted that this was $6.3 million above the ERA's AA4 final decision forecast for the project, as the ERA noted in its draft decision that the project was completed in April 2018. The ERA rejected this additional expenditure of $6.3 million.

632. In its response to the ERA draft decision, ATCO did not accept the ERA's disallowance of $6.3 million. ATCO noted the ERA disallowed the expenditure based on inadequate justification of the cost variance. However, ATCO noted the AA4 final decision included two projects:

- multi-storey buildings risk reduction
- multi-occupancy buildings risk reduction.

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264 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, pp. 29-32.

265 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, ATCO Attachment 05.107: AA4 - Compliance Summary - Supporting documentation provided, 12 June 2019.

266 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, pp. 32-34.

633. ATCO provided supporting business cases for all expenditure for AA4 where the ERA asked for additional information.

Multi-storey buildings risk reduction

634. The business case for the multi-storey buildings risk reduction was approved for [redacted] million. The project was approved in December 2013 and was completed in March 2016. The project actual expenditure was less than the project budget in the business case, however, this project was four per cent higher than the ERA's AA4 final decision forecast capital expenditure. The main driver for the variance from ERA's approved expenditure was due to the inclusion of a higher number of sites than originally forecast in ATCO's AA4 submission.

Multi-occupancy buildings risk reduction

635. There were two business cases associated with the multi-occupancy buildings risk reduction project. The total project was approved for [redacted] million. The project was approved in 2016 and completed by 2018. Actual expenditure was nine per cent higher than the business case-approved levels, although 54 per cent lower than the ERA's AA4 approved amount.

### *Security of supply project - Caversham*[267]

636. ATCO proposed to spend [redacted] million for security of supply projects commencing in 2019 and completing in 2020 for Caversham. The ERA determined that three security of supply projects in AA5 were not justified, including the Caversham project.

637. ATCO accepted the ERA's draft decision that the security of supply projects for Caversham were not conforming capital expenditure under rule 79 of the NGR.

## *Network growth capital expenditure*

638. ATCO did not accept the ERA's conclusion in its draft decision that $2.8 million of ATCO's proposed AA4 network growth capital expenditure, comprising ATCO's proposed AA4 capital expenditure for the Murdoch Drive reinforcement project and the sub-meter to master program, was not conforming capital expenditure under rule 79(2)(b) of the NGR. In its revised proposal, ATCO proposed $182.9 million of network growth capital expenditure for AA4.[268]

### *Murdoch Drive reinforcement project*[269]

639. The Murdoch Drive reinforcement project was commissioned to install high pressure steel pipeline to reinforce the distribution network in the Fremantle area. The existing steel pipeline is a small diameter steel pipeline with a critical regulating facility at the end.

640. ATCO submitted that hydraulic modelling indicated that reinforcement of the existing steel pipeline was required to ensure adequate gas supply pressure to regulator facility HS127 to ensure security of supply to the 15,500 domestic customers and two commercial customers in the Fremantle distribution network from 2019.[270]

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267 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 34.

268 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 34.

269 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, pp. 34-35.

270 HS127 is the name of the regulator facility which controls the gas pressure in the pipeline.

641. The reinforcement project began in 2016 and was completed in 2018. Changes to the project, driven by factors beyond ATCO's control, occurred after the business case was approved and affected the pipeline route. The changes were for the cancellation of the Roe 8 highway project after the 2017 State election.

642. ATCO submitted that the revised pipeline route affected the installation method, which was for installation through open trench in the original proposal. However, this was not viable in the new route and the pipeline was installed via horizontal directional drilling. The revised costs due to the design changes were approved in a revised business case and resulted in an additional $0.5 million that brought the total approved budget to $[redacted] million.

***Sub-meter to master meter project*[271]**

643. The sub-meter to master meter is intended to maintain the integrity of services by upgrading the connection assets in multi-storey buildings and so reducing the incidence of supply failures and safety incidents. ATCO submitted this needed to be done in a manner that would avoid imposing onerous costs on customers.

644. ATCO received capital contributions from a proportion of customers who received a sub-meter to master meter conversion and service connection upgrade. These contributions are applied to offset part of the actual capital expenditure.

645. ATCO submitted that the project does not provide additional throughput of gas through the network but results in additional connections and therefore additional incremental revenue. Actual and forecast AA4 expenditure on the project, net of customer contributions, is expected to be $1.4 million.

646. According to ATCO, the expenditure is supported by business cases and capital expenditure approval requests. The expenditure was not originally forecast for AA4 because the deficient and potentially unsafe assets targeted through the project are not currently owned by ATCO. The need to address the safety and reputational liabilities associated with this group of assets became clearer during AA4.

### *Structures and equipment capital expenditure*

647. ATCO disagreed with the ERA's draft decision and proposed $42.55 million for AA4 capital expenditure relating to structures and equipment.[272]

648. During AA4, ATCO expected to incur $[redacted] million capital expenditure to complete the Jandakot redevelopment ($[redacted] million) and training facility project ($[redacted] million). This level of expenditure will exceed the ERA allowance in the AA4 final decision for this project by $2.9 million. In its draft decision, the ERA determined that ATCO did not adequately justify why the additional expenditure satisfied the criteria under rule 79 the NGR and removed $[redacted] million from the AA4 forecast.

***Jandakot redevelopment and training facility*[273]**

649. As stated in paragraph 589, in the draft decision the ERA found that [redacted] million of ATCO's proposed AA4 capital expenditure for the Jandakot redevelopment and training facility did not satisfy the conforming capital expenditure criteria. This was the amount by which the initial proposed AA4 capital expenditure for this facility

[271] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, pp. 35-36.

[272] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 36.

[273] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, pp. 37-39.

([redacted] million) exceeded the forecast amount ([redacted] million) in the final decision capital expenditure forecast for AA4.

650. ATCO's revised proposal included [redacted] million of capital expenditure for the Jandakot facility, which was [redacted] million more than the amount included in its initial proposal.

651. ATCO's revised proposal outlined that its proposed AA4 capital expenditure for the Jandakot facility exceeded the AA4 final decision forecast for the facility because the forecast was developed in 2013 and based on a preliminary scope of works and design that resulted in a high-level cost estimate. As the business case was developed, ATCO formed a more accurate scope of works and design, informed also by external design and construction advice, and refined its cost estimate.

652. ATCO stated that items which contributed to the overspend included:

- The removal of temporary buildings from the site which had permeable floors and so were a risk to groundwater.
- The need for hard-standing and kerbing of all operational areas.
- The removal of the waste area and its subsequent hard-standing and partial covering.

653. ATCO stated that its proposed AA4 capital expenditure for the facility was in line with the independent cost estimate prepared by a registered quantity surveyor outlined in the business case for the project.

654. ATCO stated that the final approval and delivery of the Jandakot project in AA4 was underpinned by the following expenditure planning and governance process steps which it considered were consistent with NGR prudence and efficiency requirements:

- a substantiated identified need
- a clearly specified project scope of works and project design
- well-planned and executed procurement and delivery project phases.

655. ATCO stated that the proposed AA4 capital expenditure for the project was $0.5 million more than, and within approximately 5 per cent of, its approved business case expenditure. This variance was within ATCO's policy on acceptable variations before additional approvals are required. Additionally, ATCO stated that the project expenditure was reviewed monthly by its finance department and reported to its investment governance committee.

### *Clean Energy Innovation Hub*[274]

656. As stated at paragraph 591, the ERA's draft decision was that the [redacted] million of ATCO's proposed AA4 capital expenditure for the Clean Energy Innovation Hub did not satisfy the conforming capital expenditure criteria in rule 79 of the NGR.[275]

[274] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, pp. 39-41.

[275] ATCO's revised proposal clarified that its proposed capital expenditure for the Clean Energy Innovation Hub in its initial proposal was incorrect and should have been [redacted] million, rather than [redacted] million, with the error arising from a misstatement of the project's 2019 forecast expenditure which should have been [redacted] million. ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 40.

657. ATCO's revised proposal included [redacted] million of capital expenditure for the Clean Energy Innovation Hub, which was [redacted] million more than the amount included in its initial proposal. ATCO detailed that the proposed $2.0 million of capital expenditure was the total project cost of [redacted] million, less the Australian Renewable Energy Agency's contribution of [redacted] million.

658. ATCO attributed the increase in the amount of the expenditure for the Clean Energy Innovation Hub to specification and cost changes for two items:

- Changing electrolyser technology from alkaline to proton-exchange membrane. ATCO stated that it selected the proton-exchange membrane electrolyser as it better met the project's requirement.
- Increased cost to deliver the multi-criteria analysis tool, with the market-tested rates being [redacted] more than budgeted.

659. ATCO submitted that it discussed and agreed upon these changes with the Australian Renewable Energy Agency.

660. ATCO stated that the Clean Energy Innovation Hub would reduce its operating expenditure on an ongoing basis and estimated that the NPV of those savings over a 25-year period was [redacted] million. Additionally, ATCO considered that the Hub would yield a range of non-quantifiable benefits associated with future gas network service provision, including the potential addition of hydrogen into the gas supply.

661. ATCO maintained that the proposed capital expenditure for the Hub was justifiable under rule 79(1)(b) of the NGR as the project increased the efficiency of ATCO's operations by reducing energy costs and providing a more reliable energy source, in turn enabling a more reliable service to customers. ATCO submitted that the research and development component of the project would be used to develop its understanding of future services to customers that will retain or increase connection to the gas distribution network (citing microgrids as an example) and that higher network utilisation benefits current and future gas customers.

662. ATCO considered that due to the application of its project governance and investment management framework it had demonstrated that the cost of the project did not exceed the amount that would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice.

#### *Blue Flame Kitchen*[276]

663. ATCO accepted the ERA's draft decision position that the proposed $0.1 million of capital expenditure for the Blue Flame Kitchen was not conforming capital expenditure. ATCO did not propose to roll any AA4 capital expenditure for this project into the regulatory asset base in its revised proposal. Instead, ATCO proposed to add the AA4 capital expenditure for this project to a speculative capital expenditure account. ATCO's proposal for a speculative capital expenditure account and the ERA's considerations of this are detailed in paragraphs 787 to 800.

### *Information technology capital expenditure*

664. In its initial proposal ATCO proposed IT capital expenditure of $30.2 million for AA4. This was $1.3 million higher than the ERA forecast of $28.9 million in the AA4 final decision. The ERA noted some relatively large movements in the IT project portfolio.

[276] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, pp. 39-41.

These included $[redacted] million on the Springboard program, [redacted] million on asset management optimisation and $[redacted] million on the GIS upgrade.

665. In its draft decision, the ERA reviewed the justification for the Springboard program and was satisfied that the program aligned with good practice and ATCO's approval of this program aligned with its investment governance framework. However, the ERA's draft decision concluded that ATCO mistakenly included asset management optimisation ($[redacted] million) and the GIS upgrade ([redacted] million) in its AA4 proposed conforming capital expenditure.

- In its revised proposal ATCO proposed IT capital expenditure of $30.2 million for AA4.[277]

***Telephony upgrade (incorrectly submitted as asset management optimisation project in ATCO's initial proposal)[278]***

666. As stated at paragraph 595, the ERA's draft decision concluded that the [redacted] million of proposed capital expenditure for the asset management optimisation project was not conforming capital expenditure. ATCO's revised proposal clarified that this capital expenditure should have been proposed for the telephony upgrade project as part of the application renewal program outlined in its technology asset strategy.

667. ATCO submitted that the telephony upgrade project was for replacement of its Geomant system, which was the platform used to manage all inbound and outbound calls for ATCO's contact centre, control centre emergency team and planning team. ATCO submitted that the project was necessary to comply with its regulatory obligations and requirements.

***GIS upgrade[279]***

668. As stated at paragraph 595, the ERA's draft decision concluded that the [redacted] million of proposed capital expenditure for the GIS upgrade was not conforming capital expenditure.

669. In its revised proposal, ATCO clarified that the proposed expenditure of [redacted] million for the GIS project was for the planning and scoping phase of the project carried out in 2019, rather than in 2020 as submitted in its initial proposal.

670. ATCO engaged Esri Australia to support the planning and scoping phase of the project by preparing a location strategy to provide a roadmap for ATCO's transition to its future technology state. ATCO submitted that since its initial proposal, ATCO has moved forward with this project and the GIS location strategy is not complete. As a result, costs will be incurred in 2019 to progress the planning and scoping phase of the project. ATCO has secured extended support from Esri Australia to mitigate the risk of application failure until the implementation phase of the project is complete in 2020.

[277] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 41.

[278] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, pp. 41-42.

[279] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 42.

### *AA4 overhead capitalisation*[280]

671. ATCO did not accept the ERA's draft decision that $25.6 million of overhead did not meet the capital expenditure criteria. ATCO proposed a revised overhead value of $50.7 million, a reduction of $9 million from its adjusted AA4 proposal.

672. In response to the ERA's draft decision, ATCO submitted that the ERA and EMCa misinterpreted ATCO's information about the overhead allocation process. ATCO stated that, in discussions with EMCa and through submitted information, the $76 million of reported overhead in AA4 contained an amount of $19.2 million of direct labour. ATCO stated that this was a "nuance" of its reporting system that subsequently overstated the overhead amount. The "true overhead" amount for AA4 was $56.8 million, which was 16.6 per cent of network growth and sustaining capital expenditure.

673. ATCO submitted that, with the correct interpretation of the information it provided, the actual overhead capitalisation in AA4 was lower than the ERA's stated 23.5 per cent.

674. ATCO accepted the ERA's capitalised overhead allowance of 15 per cent of capital expenditure and the consequential reduction of AA4 capitalised overheads to an allowable overhead value of $50.7 million.

675. In its revised proposal, ATCO proposed that if any AA4 capex was found to be non-conforming and to the extent that the expenditure was not to be recovered through a surcharge on users or a capital contribution then that expenditure should be added to ATCO's speculative capital expenditure account and dealt with in accordance with rule 84 of the NGR. ATCO submitted:[281]

> Any AA4 capex to be non-conforming with NGR 79, to the extent that the expenditure is not to be recovered through a surcharge on users or a capital contribution, that expenditure will be added to ATCO's speculative capital expenditure account, in accordance with section 10 of ATCO's Access Arrangement and is also to be dealt with in accordance with NGR 84.

676. As a result of ATCO's review of capitalised overheads, ATCO found that:

- Corporate and IT overhead costs were not being adequately allocated to capital expenditure.
- Network department costs were not being fully allocated to capital expenditure because field supervisors and office staff who worked directly on projects did not have a timesheet tool to accurately capture their hours.

677. ATCO considered that corporate departments (such as finance, legal, regulatory and executive management) supported the delivery of the capital program through reporting, contract execution, oversight and governance. However, until 2015, no portion of these costs was allocated to the capital expenditure program as support costs. ATCO defined 'support costs' as those expenses necessary for delivering the capital expenditure program but not directly attributable to capital projects via source documents such as work orders, invoices or timesheets. As a result, the monetary contribution of these departments to capital expenditure was being understated.

678. In order to address this issue, ATCO required that each corporate department determine the percentage of its unallocated time that contributed to the capital

[280] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, pp. 43-55.

[281] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, pp. 59.

expenditure program, which then could be added to capitalised overhead. The percentage was established by analysing historical cost data and reviewing the nature of costs and cost drivers for each department. ATCO's review resulted in corporate and IT overhead costs being capitalised over the period from 2015 onwards.

679. ATCO also considered that:[282]

> As well as reviewing the support service cost centres, the late 2014 review identified that network departments reported a significant under allocation of direct labour costs to capex because field supervisors and office staff did not have a tool to capture their direct labour hours against projects. These network departments were conducting design, engineering and project management activities that were not being appropriately accounted for. Management considered that investing in a timesheet system to record these hours was the best long-term course of action but in the interim, these direct labour hours would be allocated to capex using our existing overhead mechanism.

680. ATCO considered the overheads incurred during AA4 in 2015, 2016, and 2017 (prior to the change in ATCO's overhead capitalisation process) included:

- direct labour costs that would be allocated to capital programs (that is, qualifying capital expenditure)
- typical overhead costs that would be allocated to capital programs (for example, administrative staff within a cost-centre that would not charge directly to a capital expenditure or operational expenditure project).

681. ATCO stated that prior to the application of the 15 per cent overhead allowance to qualifying capital expenditure, the direct labour costs incurred during 2015 through 2017 (being $19.2 million) should be removed from the overhead amount. These direct labour costs should instead be added directly to the qualifying capital expenditure, as occurred in 2018.

682. ATCO accepted the ERA's capitalised overhead allowance of 15 per cent of AA4 conforming capital expenditure and the consequential reduction of AA4 capitalised overheads to an allowable overhead value of $50.7 million. This is a reduction of $9.0 million to ATCO's adjusted AA4 proposal of $59.7 million.

### *Speculative capital expenditure*

683. In its response to the ERA's draft decision, ATCO proposed that capital expenditure reductions related to the Blue Flame Kitchen and overhead capitalisation should be included in the speculative investment expenditure account.[283]

- $0.1 million of expenditure ATCO incurred during AA4 for the Blue Flame Kitchen, which ATCO proposed to include in its regulatory asset base in its initial proposal. The ERA's draft decision was that this expenditure was not conforming capital expenditure and should not be included in the regulatory asset base.
- $9.0 million of capitalised overheads ATCO incurred during AA4, which it proposed to include in its regulatory asset base in its initial proposal. As detailed at paragraph 671, in its revised proposal, ATCO proposed a revised

[282] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 44.

[283] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 24.

overhead value of $50.7 million to be included in the regulatory asset base – a reduction of $9 million from its initial proposal of $59.7 million.

684. ATCO considers that the expenditure for the Blue Flame Kitchen and capitalised overheads meets the requirements of rule 84 of the NGR as ATCO considers the expenditure to be 'non-conforming' at this time.[284]

685. ATCO also proposed more generally that any AA4 capital expenditure which the ERA did not find to satisfy the criteria for conforming capital expenditure, and which ATCO did not recover through a surcharge on users or a capital contribution, should be added to a speculative capital expenditure account.[285]

## *Submissions to the ERA*

686. There were no submissions made in response to ATCO's initial proposal that addressed AA4 capital expenditure or the regulatory asset base for AA5.

687. There were also no submissions made in response to the ERA's draft decision or ATCO's revised proposal that addressed AA4 capital expenditure or the regulatory asset base for AA5.

## *Final decision*

### ***Overview***

688. The ERA has assessed ATCO's revised proposed opening capital base for AA5 pursuant to rules 77 and 79 of the NGR.

689. The ERA's assessment of the opening capital base also considers ATCO's governance and investment management framework and assessed how the framework applied to actual capital expenditure during AA4.

690. The ERA obtained advice from its technical advisor EMCa to support its assessment of ATCO's revised proposed opening capital base and other relevant additional information provided by ATCO.

691. The ERA's draft decision found that ATCO's AA4 business cases and supporting information for ATCO's initial proposal were of variable quality, with a major concern being the lack of rigour applied to the cost-benefit analyses of the preferred options and alternative options for the projects ATCO proposed to include in the opening capital base, particularly:

- Poor definition of the counterfactual ('no action' option).
- Errors in the modelling.
- Inconsistent application of recurrent capital costs and operating expenditure assumptions.
- Lack of analysis of the risk-cost to demonstrate whether the 'as low as reasonably practicable test' (ALARP) test had been satisfied.

692. In response to the ERA's draft decision, ATCO provided supporting information for its revised proposed opening capital base, including commercial-in-confidence

[284] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, pp. 24, 41, and 59.

[285] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 59.

business cases and compliance summaries for the projects that the ERA considered to be non-conforming capital expenditure for AA4.

693. The ERA has reviewed the additional information provided by ATCO and generally found that the information was more comprehensive than what had previously been provided. This finding was supported by EMCa's conclusion, which was that:[286]

> ATCO has provided new information that explains the composition of the AA4 capex programs. It has largely demonstrated how its actual/estimated AA4 capex has aligned with its investment governance requirements and includes variance analysis against the ERA AA4 Final decision and capex approvals.

694. In its response to the ERA's draft decision, ATCO stated that it followed a project management manual to manage projects according to the principles within ISO 21500 Guidance of Project Management. ATCO applied methods consistent with the Project Management Institute and consistent with the Institute's project management "Body of Knowledge".[287]

695. In the draft decision, the ERA accepted that $421.6 million (inclusive of equity raising costs) of the capital expenditure incurred in AA4 was conforming under the NGR. The ERA did not accept $50 million associated with network and non-network expenditure and a further $25.6 million in overheads capitalisation.

**Table 98: Comparison of AA4 conforming capital expenditure by driver ($ million real as at 31 December 2019)**

| Capital expenditure | AA4 capex allowance | ATCO initial proposal | ERA draft decision | ATCO revised proposal | ERA final decision[288] |
|---|---|---|---|---|---|
| Sustaining | 228.4 | 236.2 | 194.7 | 228.6 | 209.2 |
| Growth | 187.0 | 187.4 | 184.7 | 182.9 | 168.2 |
| Structures and equipment | 44.2 | 42.1 | 37.7 | 42.5 | 40.3 |
| Information technology | 28.9 | 30.2 | 28.9 | 29.8 | 29.7 |
| Equity raising costs | 1.1 | 1.1 | 1.1 | 1.0 | 1.0 |
| Draft Decision overhead capitalisation adjustment | | | (25.6) | | |
| **Total** | **489.6** | **497.1** | **421.6** | **484.8** | **448.3** |

*Source: ATCO initial proposal spreadsheet, ERA draft decision, ATCO revised proposal spreadsheet, and ERA final decision spreadsheet.*

[286] Energy Market Consulting Associates, Review of Technical Aspects of the Proposed Access Arrangement, October 2019, paragraph 6.

[287] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 30.

[288] The ERA final decision numbers for the drivers of capital expenditure include the ERA adjustment to overheads.

696. In its revised proposal, ATCO:

- Rejected the majority of the ERA's findings described in its draft decision and the ERA's associated adjustments.
- Re-estimated the capex it expected to incur during AA4.
- Included reductions to the Blue Flame Kitchen and Caversham security of supply projects.
- Made changes to its overhead capitalisation, including allocating $9 million to the speculative capital expenditure account.

### *Network sustaining capital expenditure*

697. Based on the information supplied by ATCO in response to the draft decision, and for the reasons set out below, the ERA has concluded that $209.2 million of proposed network sustaining capital expenditure for AA4 included in ATCO's revised proposal satisfies the criteria for conforming capital expenditure under rule 79(1) of the NGR.[289] Therefore, $209.2 million of network sustaining capital expenditure has been included in ATCO's opening capital base for AA5, as shown in Table 98.

#### *Metallic mains replacement*

698. In its response to the ERA's draft decision ATCO proposed that $[redacted] million of actual capital expenditure on its Metallic Mains Replacement Program in AA4 meets rule 79(1)(a) and rules 79(2)(c)(i) and (ii) of the NGR.[290] The ERA has reviewed the additional information supplied by ATCO in its response to the ERA draft decision for its AA4 mains replacement capital expenditure including ATCO's business case and capital expenditure approval requests. Based on this new information and technical advice received from EMCa, and for the reasons set out below, the ERA considers that $57.87 million for the AA4 metallic mains replacement activities were necessary to maintain and improve the safety of services and to maintain the integrity of services and therefore satisfy rule 79(2)(c) of the NGR.[291] The ERA is also satisfied that the metallic mains replacement activities were in accordance with rule 79(1)(a) of the NGR, being capital expenditure that would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services.

699. The ERA agrees with EMCa's assessment of the Metallic Mains Replacement Program and considers that ATCO reasonably justified the increase in unit costs of the project. EMCa stated in its report:[292]

> ATCO has explained that the unit cost assumptions relied upon at the time of the AA4 submission were derived from the historical volumes of capex. However, since that time, the contractual arrangements and composition of the projects (amongst other

[289] This includes the adjusted amount of capitalised overhead which the ERA has concluded should be considered conforming capital expenditure and therefore included in ATCO's opening capital base for AA5 as outlined in paragraphs 785 to 786.

[290] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 25. ATCO states this figure is [redacted] million and the difference between [redacted] million and [redacted] million is ATCO's adjustment to capitalised overhead. See paragraph 671 of this final decision.

[291] Inclusive of capitalised overhead. Adjustments were made by the ERA to ATCO's proposed capitalised overhead. These adjustments are described in paragraph 777 to 786.

[292] Energy Market Consulting Associates, Review of Technical Aspects of the Proposed Access Arrangement, October 2019, paragraph p. 12.

factors) has changed markedly. More recently in 2019, a higher number of smaller projects (replacement of small segments) has resulted in an increase to unit costs.

700. In the draft decision, the ERA found that $16.69 million of ATCO's proposed capital expenditure for unprotected metallic mains did not satisfy the criteria for conforming capital expenditure set out in rule 79 of the NGR. This was the amount in excess of what was included for replacing metallic mains in the ERA's AA4 final decision capital expenditure forecast. ATCO attributed the overrun to increasing its volume of replacement from what was included in the AA4 final decision. The ERA considered that ATCO had not provided sufficient information to explain the increased volume of replacement.

701. In its revised proposal ATCO stated that it incurred $[redacted] million of capital expenditure for the replacement of metallic mains during AA4. The difference between actual expenditure ($[redacted] million) and incurred expenditure ([redacted] million) is due to inclusion of a capitalised overhead adjustment. ATCO proposed the exclusion of $9.0 million in the capitalised overhead in its response to the ERA draft decision.[293] In its response to the ERA draft decision ATCO also included actual 2018 expenditure instead of its forecast.

702. The proposed amount for metallic mains in both ATCO's initial and revised proposals included capitalised overhead, whereas the proposed amounts for other projects in ATCO's revised proposal did not. As outlined at paragraph 671, ATCO reduced the amount of capitalised overhead it proposed to include in the regulatory asset base by $9 million in total. The amount of capitalised overhead included in the proposed amount of AA4 capital expenditure for projects to which the capitalised overhead was attributed was reduced in proportion to the total reduction in capitalised overhead.

703. In response to the draft decision, ATCO provided additional information on its AA4 metallic mains replacement capital expenditure, including business cases and capital expenditure appropriation requests covering the full amount of the capital expenditure it would incur ($[redacted] million).

704. As outlined at paragraphs 614 to 616, ATCO explained that the variance between the capital expenditure it expected to incur during AA4 for the metallic mains replacement and the amount included in the ERA's AA4 final decision capital expenditure forecast was due to an increase in the volume of replacements delivered and an increased unit cost of delivery relative to its forecasts for AA4.[294] In its response to the draft decision, ATCO has explained the reasons for the increased capital expenditure as follows:

- The actual metallic mains replaced in AA4 was [redacted]km compared with the approved forecast for AA4 of [redacted]km. The increase in volume was due to the identification by ATCO of opportunities for more efficient delivery of the project, such as bringing forward and bundling projects in the same suburb.
- The higher than forecast metallic mains activity in 2017 and 2018 was due to projects being bought forward with other projects to take advantage of operational and cost efficiency as well as minimise disruptions.
- Increased unit costs variances are explained by the following:

[293] Capitalised overhead adjustments are explained in paragraphs 756 to 764 of this final decision.

[294] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 25.

- In 2015 the works were carried out pursuant to an individual contract tender, prior to the establishment of the new contract with the replacement contractors
- In 2016 with the commencement of a new contractor CivCon ATCO had made allowances in the work program for CivCon time to build capability. Also, in 2016 other factors that increased costs were increased service frequency, hard ground conditions as the project moved toward Fremantle and a greater requirement for regulators to allow for a pressure increase.
- In 2017 a significant share of the work was planned for areas with higher than normal cost factors, such as rock and service density.
- In 2019 the set of replacement projects comprised many small segments and hard to reach assets that are expensive to replace on a per metre measure.
- In previous years, the scope of work was concentrated mainly in one suburb. In 2019 the scope of work is made up of numerous jobs scattered across the metropolitan area, with significant traffic management requirements and night works expected. The scope also includes some very complex jobs such as freeway and railway crossings.

705. The ERA is not satisfied, however, that the whole of the proposed $[redacted] million of AA4 capital expenditure for unprotected metallic mains would have been incurred by a prudent service provider acting efficiently. As noted at paragraph 785, the ERA has determined that a capitalised overhead to direct capital expenditure ratio of 15 per cent is consistent with the capitalised overhead that would have been incurred by a service provider acting efficiently for network sustaining capital expenditure projects. The ERA has therefore estimated the efficient amount of AA4 capital expenditure for metallic mains replacement as the direct capital expenditure for these activities plus 15 per cent, with the 15 per cent being the capitalised overhead attributed to the metallic mains projects. Based on this calculation, the ERA concludes that $57.87 million is the amount of capital expenditure that would have been incurred for the metallic mains replacement projects by a prudent service provider acting efficiently to achieve the lowest sustainable cost of providing services during AA4 consistent with rule 79(1)(a) of the NGR.

706. ATCO's metallic mains replacement capital expenditure was supported by a compliance summary.[295] In the compliance summary three options are considered in four business cases. Option 1 (replacing metallic mains over a five year period) was assessed against Option 2 (replacing metallic mains over a ten year time frame) and against Option 3 (do nothing). ATCO considered that Option 1 was the preferred option and that it:

> "… was considered the lowest cost corresponding with a reducing leak rate over time. This option provided an effective long term solution and would contribute to realising economic value through reduction of risks to the business. This option was recommended on the basis that an acceptable level of network integrity is maintained and it balances risk."[296]

[295] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, *Attachment 05.102 AA4 Compliance Summary: Metallic Mains*, 12 June 2019, p. 13.

[296] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, *Attachment 05.102 AA4 Compliance Summary: Metallic Mains*, 12 June 2019, p. 13.

707. The ERA concludes that the amount of $57.87 million, adjusted for overheads, for metallic mains projects is conforming capital expenditure given the new information provided by ATCO in its response to the ERA draft decision (see paragraphs 613 to 618), as it is such as would incurred by a prudent service provider and acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services as required by rule 79(1)(a) of the NGR and conforms with the criteria under rule 79(2)(c)(i) as it was necessary to maintain and improve the safety of services.

708. Therefore, the ERA considers that $57.87 million of capital expenditure is conforming capital expenditure according to rules 79(1)(a) and 79(2)(c)(i) and (ii) of the NGR. $57.87 million of capital expenditure for metallic mains replacement has therefore been included in the opening capital base for AA5.

***Odd size unprotected steel***

709. In its response to the draft decision ATCO submitted that the $[redacted] million[297] of actual expenditure on the Odd Size Steel Mains Replacement Program over AA4 meets rules 79(1)(a) and 79(2)(c)(i) and (ii) of the NGR. Based on the new information supplied by ATCO in its response to the draft decision the ERA considers that $13.18 million[298] of this capital expenditure is now conforming under NGR 79(1)(a) and 79(2)(c)(i).

710. In the draft decision, the ERA found that [redacted] million of ATCO's proposed capital expenditure for odd size unprotected steel did not satisfy the criteria for conforming capital expenditure set out in rule 79 of the NGR. This was the amount in excess of what was included for replacing odd size unprotected steel in the ERA's AA4 final decision capital expenditure forecast. The ERA's reasoning was that ATCO did not provide adequate information to demonstrate that the additional $5.4 million capital expenditure was justifiable capital expenditure according to rule 79(1)(a) and rule 79(2)(c)(i) of the NGR and therefore did not fulfil the conforming capital expenditure criteria.

711. ATCO's revised proposal stated that it incurred $14.44 million of capital expenditure for the replacement of odd size protected steel mains during AA4. The ERA considers that $13.18 million is conforming capital expenditure. The difference is due to the ERA adjustment in capitalised overheads as outlined in paragraphs 777 to 786.

712. The difference between ATCO's initial proposal and its response to the ERA draft decision is due to 2018 actual expenditure data becoming available and other factors. These other factors included higher than expected costs of works including increased traffic management costs, night works, complexity of the area, such as soil type (hard ground conditions), and reinstatement requirements due to mains locations (road, footpaths).[299]

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297 ATCO's response to the draft decision states this figure is $[redacted] million, with the difference between $[redacted] million and $[redacted] million is ATCO's adjustment to capitalised overhead. ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 28.

298 Inclusive of capitalised overhead. Adjustments were made by the ERA to ATCO's proposed capitalised overhead. These adjustments are described in paragraph 777 to 786.

299 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, *Attachment 05.103: Compliance Summary - Odd Size Steel,* 12 June 2019, Section 2.3. In summary, ATCO proposes that this expenditure is conforming capital expenditure under rules 79(1)(a) and 79(2)(c)(i) and (ii) under the NGR, as established by the relevant business cases and capital expenditure approval requests.

713. In response to the draft decision, ATCO provided additional information on its AA4 odd size unprotected steel, including business cases and capital expenditure approval requests covering the full amount of the capital expenditure it actually spent ($[redacted] million). ATCO considers that these documents demonstrate that ATCO has adhered to its internal governance process for investment management while incurring the capital expenditure for the odd size unprotected steel replacements during AA4.

714. As outlined at paragraph 621, ATCO explained that the variance between the capital expenditure it expected to incur during AA4 for odd size unprotected steel and the amount included in the ERA's AA4 final decision capital expenditure forecast was due to an increase in the cost of delivering the program, primarily due to the increasing proportions of service replacements incurred during AA4.

715. The ERA has reviewed the additional information supplied by ATCO for its AA4 odd size unprotected steel capital expenditure in response to the draft decision. Based on the new information provided by ATCO and technical advice received from EMCa, the ERA considers that ATCO has adequately explained the increase in the cost of delivering the program.[300] The projects used as the basis for forecasting the unit costs for the replacements in AA4 were unrepresentative of the work that was actually carried out and so underestimated the actual costs of the work.

716. The ERA is not satisfied, however, that the incurred $[redacted] million of AA4 capital expenditure for odd size unprotected steel would be incurred by a prudent service provider acting efficiently, to achieve the lowest sustainable cost of providing services in accordance with rule 79(1)(a) of the NGR. For the same reasons outlined at paragraph 785, the ERA has estimated the efficient amount of AA4 capital expenditure for odd size unprotected steel as the direct capital expenditure for these activities plus 15 per cent, with the 15 per cent being the capitalised overhead attributed to the projects. Based on this calculation, the ERA concludes that $13.18 million is the amount of capital expenditure that would be incurred for the odd size unprotected steel replacement projects by a service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services during AA4, consistent with rule 79(1)(a) of the NGR.

717. Based on the information supplied by ATCO and technical advice received from EMCa, the ERA considers that the proposed AA4 odd size unprotected steel activities were necessary to maintain and improve the safety of services and to maintain the integrity of services and are therefore justified under rules 79(2)(c)(i) and 79(2)(c)(ii) of the NGR.

718. Based on the conclusions outlined at paragraphs 714 to 715, the ERA concludes that $13.18 million of the proposed capital expenditure for odd size unprotected steel satisfies the criteria for conforming capital expenditure set out in rule 79(1) of the NGR. $13.18 million of capital expenditure for odd size unprotected steel has therefore been included in the opening capital base for AA5.

[300] Energy Market Consulting Associates, Review of Technical Aspects of the Proposed Access Arrangement, October 2019, paragraph 79.

### *PVC mains and services*

719. In its response to the draft decision, ATCO submitted that its revised AA4 forecast expenditure of $[redacted] million[301] on the PVC Mains and Services Replacement Program over AA4 meets the rules 79(1)(a) and 79(2)(c)(i) and (ii) of the NGR.[302] The ERA considers an amount of $18.25 million[303] for PVC Mains and services replacement satisfies rule 79(1)(a) and 79(2)(c)(i) and (ii) of the NGR.

720. The ERA's draft decision was that $[redacted] million of ATCO's proposed capital expenditure for PVC mains and services did not satisfy the criteria for conforming capital expenditure set out in rule 79 of the NGR. $[redacted] million was the amount in excess of what was included for replacing PVC mains and services in the ERA's AA4 final decision capital expenditure forecast. The ERA's reasoning was that ATCO did not provide adequate information to explain the increase in the PVC mains replacement rate during AA4 and how the accelerated replacement was reflected in its strategy for AA4.

721. ATCO's revised proposal stated that it incurred $[redacted] million of capital expenditure for the replacement of PVC mains and services during AA4. This was less than the amount of $[redacted] million included in ATCO's initial proposal.

722. The capital expenditure incurred by ATCO over the AA4 period, for PVC mains and services in both the initial and revised proposal included capitalised overhead, however, in its revised proposal ATCO has reduced the amount of capitalised overhead included in the proposed amount. This reduction has been made proportionate to the total reduction in the capitalised overhead ATCO proposed for its AA4 capital expenditure, for overhead costs of $9 million.

723. As outlined at paragraph 627, ATCO attributed the increase in the PVC mains replacement rate during AA4, relative to forecast, to the emergence of a higher rate of leaks in some PVC assets and opportunities for more efficient delivery identified during AA4. In response to the draft decision, ATCO provided further information to explain the increase in the PVC mains replacement rate during AA4.[304] ATCO submitted in its Compliance Summary document that it prudently managed the increased level of investment and the reasons for it.[305] ATCO submitted that these documents demonstrate that it has adhered to its internal governance process for investment management in incurring the capital expenditure for the PVC mains and services during AA4.

724. Based on a review of the information supplied by ATCO and technical advice received from EMCa, the ERA considers that ATCO has now adequately explained the reason for the increase in the PVC mains replacement rate during AA4.[306] The AA4 PVC

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301 ATCO's response to the draft decision states this figure is [redacted] million, with the difference between $[redacted] million and [redacted] million being ATCO's adjustment to capitalised overhead. ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 29.

302 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 29.

303 Inclusive of capitalised overhead. Adjustments were made by the ERA to ATCO's proposed capitalised overhead. These adjustments are described in paragraph 777 to 752.

304 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, *Attachment 05.101 AA4 – Compliance Summary – PVC Mains replacement – CONFIDENTIAL,* 12 June 2019; ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, Attachment 05.107 AA4 – Compliance Summaries – Supporting Documents, L.001, 12 June 2019.

305 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 30.

306 Energy Market Consulting Associates, Review of Technical Aspects of the Proposed Access Arrangement, October 2019, paragraph 87.

mains and services replacements were necessary to maintain (see paragraph 628 to 630) and improve the safety of services and to maintain the integrity of services and therefore satisfy rules 79(2)(c)(i) and 79(2)(c)(ii) of the NGR as outlined in paragraph 626. The ERA is also satisfied that the PVC mains replacement activities were in accordance with accepted good industry practice, as required by rule 79(1)(a) of the NGR.

725. However, the ERA is not satisfied that the whole of the proposed $[redacted] million of AA4 capital expenditure for PVC mains and services would be incurred by a prudent service provider acting efficiently, to achieve the lowest sustainable cost of providing services, in accordance with rule 79(1)(a) of the NGR. As stated at paragraph 785, the ERA has determined that a capitalised overhead to direct capital expenditure ratio of 15 per cent is consistent with the capitalised overhead that would be incurred by a service provider acting efficiently for network sustaining capital expenditure projects. The ERA has therefore estimated the efficient amount of AA4 capital expenditure for PVC mains and services as the direct capital expenditure for these activities plus 15 per cent, with the 15 per cent being the capitalised overhead attributed to the PVC mains projects.

726. Making this adjustment for capitalised overhead, the ERA concludes that $18.25 million is the amount of capital expenditure that would be incurred for the PVC mains and services projects by a prudent service provider acting efficiently during AA4, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services. Given that the ERA concludes also that the PVC mains and services replacements are justifiable capital expenditure and in accordance with accepted good industry practice, $18.25 million of capital expenditure is considered conforming capital expenditure consistent with rule 79(1) of the NGR. $18.25 million of capital expenditure for PVC mains and services has therefore been included in the opening capital base for AA5.

***Multi-storey building risk reduction***

727. In its response to the ERA draft decision ATCO submitted that $[redacted] million[307] of expenditure for multi-storey buildings risk reduction and multioccupancy buildings risk reduction is conforming capital expenditure under rules 79(1)(a) and 79(2)(c)(ii) of the NGR. The ERA considers that $12.55 million[308] in capital expenditure is conforming capital expenditure in accordance with rules 79(1)(a) and 79(2)(c)(ii) of the NGR.

728. The ERA's draft decision found that $[redacted] million of ATCO's proposed capital expenditure for multi-storey building risk reduction did not satisfy the criteria for conforming capital expenditure set out in rule 79 of the NGR. $[redacted] million was the amount in excess of what was included for multi-storey building risk reduction in the ERA's AA4 final decision capital expenditure. The ERA draft decision reasoning was that ATCO did not adequately explain why the timeframe for the single project covered by the proposed capital expenditure extended to 2018 and why the cost of the project exceeded the forecast cost.

729. ATCO's revised proposal clarified that the proposed AA4 incurred capital expenditure of $[redacted] million in its initial proposal was not for a single project, but rather for two

[307] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 32. ATCO states this figure is $[redacted] million, with the difference between $[redacted] million and $[redacted] million being ATCO's adjustment to capitalised overhead.

[308] Inclusive of capitalised overhead. Adjustments were made by the ERA to ATCO's proposed capitalised overhead. These adjustments are described in paragraph 777 to 786.

projects, being the multi-storey buildings risk reduction project ($[redacted] million) and the multi-occupancy buildings risk reduction project ($[redacted] million).

730. ATCO reduced its proposed AA4 capital expenditure for multi-storey building risk reduction to $[redacted] million. The proposed capital expenditure for multi-storey building risk reduction in ATCO's revised proposal included capitalised overhead, however, in its revised proposal ATCO reduced the amount of capitalised overhead included in the proposed amount. This reduction was made proportionate to the total reduction in capitalised overhead ATCO proposed for its AA4 capital expenditure.

731. In response to the draft decision, ATCO provided further information including business cases and capital expenditure approval requests on the projects comprising its proposed AA4 multi-storey building risk reduction capital expenditure. Based on a review of the information supplied by ATCO and technical advice received from EMCa, the ERA considers based on the new information provided by ATCO in response to the ERA draft decision (see paragraphs 633 to 635) that ATCO's AA4 multi-storey risk reduction capital expenditure was necessary to maintain and improve the safety of services and to maintain the integrity of services and therefore satisfies rules 79(2)(c)(i) and 79(2)(c)(ii) of the NGR. The ERA is also satisfied that the activities were in accordance with accepted good industry practice consistent with rule 79(1)(a) of the NGR.[309]

732. The ERA is not satisfied, however, that the whole of the proposed $[redacted] million of AA4 capital expenditure for multi-storey building risk reduction would be incurred by a prudent service provider acting efficiently, to achieve the lowest sustainable cost of providing services in accordance with rule 79(1)(a) of the NGR. As stated at paragraph 785, the ERA has determined that a capitalised overhead to direct capital expenditure ratio of 15 per cent is consistent with the capitalised overhead for network sustaining capital expenditure projects that would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services. The ERA has therefore estimated the efficient amount of AA4 capital expenditure for multi-storey building risk reduction projects as the direct capital expenditure for these activities plus 15 per cent, with the 15 per cent being the capitalised overhead attributed to the multi-storey building risk reduction projects.

733. Making this adjustment for capitalised overhead, the ERA concludes that $12.55 million is the amount of capital expenditure that would be incurred for the two multi-storey building risk reduction projects by a service provider acting efficiently during AA4, in accordance with accepted industry practice, to achieve the lowest sustainable cost of providing services. Given that the ERA concludes also that the projects are justifiable capital expenditure under rules 79(2)(c)(i) and 79(2)(c)(ii) and in accordance with accepted good industry practice, $12.55 million of capital expenditure is considered conforming capital expenditure according to rule 79(1) of the NGR. $12.55 million of capital expenditure for multi-storey building risk reduction projects has therefore been included in the opening capital base for AA5.

***Security of supply project – Caversham***

734. In its revised proposal, ATCO accepted the ERA's draft decision conclusion that $[redacted] million of AA4 capital expenditure for the Caversham security of supply project

[309] Energy Market Consulting Associates, Review of Technical Aspects of the Proposed Access Arrangement, October 2019, paragraph 93.

was not conforming capital expenditure. ATCO did not propose any AA4 capital expenditure for this project in its revised proposal.

### *Network growth capital expenditure*

735. Based on the information supplied by ATCO in response to the draft decision, and for the reasons set out below, the ERA has concluded that $168.2 million proposed network sustaining capital expenditure for AA4 included in ATCO's revised proposal satisfies the criteria for conforming capital expenditure under rule 79(1) of the NGR.[310] Therefore, $168.2 million of network growth capital expenditure has been included in ATCO's opening capital base for AA5, as shown in Table 98.

#### *Sub-meter to master meter program*

736. In its response to the ERA's draft decision ATCO submitted that capital expenditure of $[redacted] million[311] meets the criteria of rules 79(1)(a) and 79 (2)(c)(i) or (ii) of the NGR. The ERA is satisfied that $[redacted] million,[312] net of customer contributions of $[redacted] million, of the sub-meter to master meter project satisfies the incremental revenue test set out in rule 79(2)(b) of the NGR and is therefore justifiable capital expenditure as required by rule 79(2)(b) of the NGR.

737. The ERA's draft decision found that the entire amount of ATCO's proposed capital expenditure for the sub-meter to master meter program, [redacted] million, did not satisfy the criteria for conforming capital expenditure set out in rule 79 of the NGR. The ERA found that ATCO had not provided adequate information to demonstrate that the proposed capital expenditure satisfied the criteria for conforming capital expenditure set out in rule 79 of the NGR. Further, the ERA found that the program was not related to the new connection expenditure over AA5 and did not represent new services that need to be provided during this period.

738. ATCO maintained in its revised proposal that the AA4 capital expenditure for the sub-meter to master meter project should be included in its regulatory asset base. However, ATCO reduced the incurred AA4 capital expenditure for the program to [redacted] million, which was the revised estimated capital expenditure incurred for the program net of [redacted] million of customer contributions and revised for ATCO's adjustment to capitalised overhead. ATCO did not provide an explanation for the reduction in estimated capital expenditure for the program compared to the $[redacted] million in its initial proposal.

739. The capital expenditure incurred by ATCO over the AA4 period, for sub-meter to master meters program in both ATCO's initial and revised proposal included capitalised overhead. However, in its revised proposal ATCO has reduced the amount of capitalised overhead included in the proposed amount. This reduction has been made proportionate to the total reduction in the capitalised overhead ATCO proposed for its AA4 capital expenditure for overhead costs of $9 million.

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310 This includes the adjusted amount of capitalised overhead which the ERA has concluded should be considered conforming capital expenditure and therefore included in ATCO's opening capital base for AA5 as outlined in paragraphs 785 to 786.

311 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 35. ATCO states this figure is $[redacted] million, with the difference between $[redacted] million and $[redacted] million being ATCO's adjustment to capitalised overhead.

312 Inclusive of capitalised overhead. Adjustments were made by the ERA to ATCO's proposed capitalised overhead. These adjustments are described in paragraph 777 to 786.

740. ATCO submitted that its capital expenditure for the sub-meter to master meter program was subject to a robust process for evaluating incremental revenue and determining customer contributions. ATCO submitted that each site in the program was subject to a financial risk assessment, and any negative NPV was offset by a customer contribution before any project capital expenditure was incurred. ATCO supplied information documenting this process.[313]

741. The ERA agrees with EMCa's technical advice and with ATCO's assessment of the program and considers that the program justified under the incremental revenue test, such that each site is subject a financial risk assessment, and any negative NPV is offset by customer contributions before the project proceeds.[314]

742. Based on a review of the additional information supplied by ATCO, which included a business case and capital expenditure approval requests, and technical advice received from EMCa, the ERA is satisfied based on new information provided by ATCO in its response to the ERA draft decision (see paragraphs 643 to 646) that the sub-meter to master meter project satisfies the incremental revenue test set out in rule 79(2)(b) of the NGR and is therefore justifiable capital expenditure as required by rule 79(1)(b) of the NGR.[315] Further, the ERA is satisfied that the capital expenditure would be incurred by a prudent service provider acting efficiently and is consistent with accepted good industry practice to achieve the lowest sustainable cost of providing services as required by rule 79(1)(a) of the NGR. The ERA therefore concludes that $[redacted] million ($[redacted] million less customer contributions of $[redacted] million) of proposed capital expenditure for the sub-meter to master meter program satisfies the criteria for conforming capital expenditure set out in rule 79 of the NGR. $0.48 million of capital expenditure for the program has therefore been included in the opening capital base for AA5.

***Reinforcement – Murdoch Drive***

743. In its response to the ERA draft decision ATCO submitted that it incurred $[redacted] million[316] in capital expenditure and this expenditure is conforming capital expenditure under rules 79(1)(a) and 79(2)(c)(ii) of the NGR. The ERA considers that the $2.72 million[317] of incurred capital expenditure for the Murdoch Drive reinforcement project satisfies the criteria for conforming capital expenditure set out in rule 79(1)(a) and 79(2)(c) of the NGR.

744. In the draft decision, the ERA found that [redacted] million of ATCO's proposed capital expenditure for the Murdoch Drive reinforcement project did not satisfy the criteria for conforming capital expenditure set out in rule 79 of the NGR. [redacted] million was the amount incurred for the project in excess of the project cost estimate in its approved

313 ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, *Attachment 05.105 AA4 – Compliance Summary – Sub Meter to Master Meter program CONFIDENTIAL,* 12 June 2019; ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, Attachment 05.108 AA4 – Compliance Summaries – Supporting Documents, L.001, 12 June 2019.

314 Energy Market Consulting Associates, Review of Technical Aspects of the Proposed Access Arrangement, October 2019, paragraph p. 16.

315 Energy Market Consulting Associates, Review of Technical Aspects of the Proposed Access Arrangement, October 2019, paragraph 100.

316 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 35. ATCO states this figure is [redacted] million, with the difference between [redacted] million and [redacted] million being ATCO's adjustment to capitalised overhead

317 Inclusive of capitalised overhead. Adjustments were made by the ERA to ATCO's proposed capitalised overhead. These adjustments are described in paragraph 777 to 786 .

business case. The ERA was not satisfied that ATCO had adequately explained the overspend on the project nor demonstrated that the overspend satisfied the criteria for conforming capital expenditure.

745. In its response to the ERA draft decision, ATCO maintained its proposal to include [redacted] million of capital expenditure for the Murdoch Drive project in its regulatory asset base. In response to the draft decision ATCO provided further information to explain the reasons for the project overspend during AA4. ATCO attributed the increase to changes to the project, caused by factors beyond ATCO's management's control that occurred after the business case was approved affected the pipeline route and thereby changing the installation method for the pipeline. According to ATCO:[318]

> The changes were related to the cancellation of the 'Roe 8' project after the WA State election. The revised pipeline route affected the installation method. The original proposal was for installation through open trench; however, this was not viable in the new route and the pipeline was installed via horizontal directional drilling.

746. The capital expenditure incurred by ATCO over the AA4 period for Murdoch Drive reinforcement in both ATCO's initial and revised proposal included capitalised overhead. However, in its revised proposal ATCO has reduced the amount of capitalised overhead included in the proposed amount. This reduction has been made proportionate to the total reduction in the capitalised overhead ATCO proposed for its AA4 capital expenditure for overhead costs of $9 million.

747. Based on a review of the information supplied by ATCO and technical advice received from EMCa, the ERA considers that ATCO has now adequately explained the increase in the Murdoch Drive capital expenditure beyond the forecast amount which occurred during AA4.[319] Further, the ERA considers that the work covered by the overspend was necessary to maintain and improve the safety of services and to maintain the integrity of services and therefore satisfies rules 79(2)(c)(i) and 79(2)(c)(ii) of the NGR. The ERA is also satisfied that the work covered by the overspend was in accordance with accepted good industry practice, and the capital expenditure for this work would be incurred by a prudent service provider acting efficiently to achieve the lowest sustainable cost of providing services, as required by rule 79(1)(a) of the NGR. The ERA therefore concludes the [redacted] million[320] of additional proposed capital expenditure for the Murdoch Drive reinforcement project satisfies the criteria for conforming capital expenditure set out in rule 79 of the NGR. [redacted] million of capital expenditure for the reinforcement project has therefore been included in the opening capital base for AA5.

### *Structures and equipment capital expenditure*

748. Based on the information supplied by ATCO in response to the ERA's draft decision, and for the reasons set out below, the ERA has concluded that $40.3 million of proposed structures and equipment capital expenditure for AA4 included in ATCO's revised proposal satisfies the criteria for conforming capital expenditure under rule

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318 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 35. ATCO states this figure is $3.1 million, with the difference between $3.1 million and $3.0 million being due to ATCO's adjustment to capitalised overhead.

319 Energy Market Consulting Associates, Review of Technical Aspects of the Proposed Access Arrangement, October 2019, paragraph 104.

320 Inclusive of capitalised overhead. Adjustments were made by the ERA to ATCO's proposed capitalised overhead. These adjustments are described in paragraph 777 to 786 of this final decision.

79(1) of the NGR.[321] Therefore, $40.3 million of structures and equipment capital expenditure has been included in ATCO's opening capital base for AA5, as shown in Table 98.

***Jandakot redevelopment and training facility***

749. ATCO proposed that $[redacted] million[322] of AA4 capital expenditure for the Jandakot redevelopment and training facility is conforming capital expenditure, submitting that this work was necessary to maintain and improve the safety of services, maintains the integrity of services, and complies with a regulatory obligation or requirement. under rules79(1)(a) and 79(2)(c)(i), 79(2)(c)(ii) and 79(2)(c)(iii). The ERA is of the view that capital expenditure of $10.01 million[323] for the Jandakot facility satisfies rules 79(1)(a) and 79(2)(a) of the NGR.

750. ATCO provided additional information on the Jandakot redevelopment and training facility project in response to the ERA's draft decision, including:[324]

- A breakdown of the refinement of the project cost estimates over time.
- A description of the needs addressed by the project.
- A description of the reasons for the difference between the project's cost and the amount included in the AA4 final decision forecast.
- Options analysis for the project.
- A description of the governance and management processes applied to the project's execution.

751. Based on the additional information supplied by ATCO and technical advice received, the ERA concludes that $[redacted] million (ERA inflation adjusted) of proposed capital expenditure for the Jandakot facility is consistent with what would be incurred by a prudent service provider acting efficiently and in accordance with good industry practice in accordance with rule 79(1)(a) of the NGR.[325] [326] This conclusion is supported by the ERA's view that ATCO has provided satisfactory information demonstrating that it applied its project governance and investment management framework to manage the cost of executing the project.

752. The ERA considers that the $[redacted] million of proposed capital expenditure is necessary to maintain and improve the safety of services, to maintain the integrity of services and to comply with ATCO's regulatory obligations and is therefore justified

[321] This includes the adjusted amount of capitalised overhead which the ERA has concluded should be considered conforming capital expenditure and therefore included in ATCO's opening capital base for AA5 as outlined in paragraphs 785 to 786.

[322] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 37. ATCO states this figure is $[redacted] million the difference between $[redacted] million and $[redacted] million is ATCO's adjustment to capitalised overhead of $9 million. Note the difference isn't large in this case as the Jandakot Warehouse redevelopment and Training centre does not have overheads allocated to these two projects. Overheads only apply to Jandakot security system upgrade.

[323] Inclusive of capitalised overhead. Adjustments were made by the ERA to ATCO's proposed capitalised overhead. These adjustments are described in paragraphs 777 to 786.

[324] ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, *Attachment 05.104 AA4 Compliance Summary: Jandakot Redevelopment – Phase 2 CONFIDENTIAL.*

[325] Energy Market Consulting Associates, Review of Technical Aspects of the Proposed Access Arrangement, October 2019, paragraph 116. EMCa's opinion was that ATCO had taken reasonable measures to manage the project delivery and minimise the final cost associated with the project, and that the independent cost estimate on which its business case approval was base appeared to be reasonable.

[326] ERA inflation adjustment is explained in paragraphs 266 to 267.

under rules NGR 79(2)(c)(i), 79(2)(c)(ii) and 79(2)(c)(iii) of the NGR. This conclusion is based on the additional information supplied in response to the draft decision and technical advice receive from EMCa. The technical advice received from EMCa was that ATCO has demonstrated a substantiated identified need for the work covered by the project.[327] The proposed $[redacted] million of capital expenditure for the Jandakot facility therefore would satisfy rule 79(1)(a) of the NGR.

753. Based on the conclusions outlined at paragraphs 751 and 752, the proposed AA4 capital expenditure of $[redacted] million for the Jandakot redevelopment and training facility is conforming capital expenditure and in accordance with the criteria set out in rule 79 of the NGR and has been included in ATCO's opening capital base for AA5.

***Clean Energy Innovation Hub***

754. In its response to the ERA draft decision, ATCO submitted that $[redacted] million in capital expenditure incurred in the AA4 period, net of an ARENA capital grant of $[redacted] million, is conforming capital expenditure under rules 79(1)(a) and 79(2)(a) of the NGR.

755. The ERA considers that ATCO did not provide evidence which adequately justified the proposed capital expenditure on the Clean Energy Innovation Hub incurred during AA4 was for the provision of pipeline services or may be used in the future in connection with the provision of pipeline services. "Capital expenditure" refers to the costs and expenditure of a capital nature incurred to provide, or in providing pipeline services.[328] Pipeline services are services in the provision of natural gas provided by means of a pipeline (including a haulage service and a service providing for or facilitating the interconnection of pipelines) and services ancillary to services provided by means of a pipeline.[329] The ERA is therefore not satisfied that the expenditure for the Clean Energy Innovation Hub is "capital expenditure".

756. While not required given the ERA's determination that the expenditure is not for pipeline services (and therefore not "capital expenditure"), the ERA did also consider ATCO's proposal under rule 79 of the NGR.

757. The ERA considers that the expenditure is non-conforming expenditure under rule 79(1)(a) of the NGR.

758. ATCO provided additional information on the Clean Energy Innovation Hub in response to the ERA's draft decision, including: [330]

- An NPV model of the operating expenditure savings from the Hub project.
- A description of the needs addressed by the project.
- A description of the reasons for the difference between the project's cost and the budgeted project cost.

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327 Energy Market Consulting Associates, Review of Technical Aspects of the Proposed Access Arrangement, October 2019, paragraph 116.

328 NGR, rule 69.

329 NGL, section 2.

330 ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, *Attachment 05.106 AA4 Compliance Summaries – Supporting Documents CONFIDENTIAL, N009. CEIH NPV Option 2 – En Sav – 25yr,* 12 June 2019*;* ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, *Attachment 05.106 AA4 Compliance Summary: Clean Energy Innovation Hub CEIH – CONFIDENTIAL,* 12 June 2019*;*

- Options analysis for the project.
- A description of the governance and management processes applied to the project's execution.

759. Based on the information supplied by ATCO, the ERA is not satisfied that the proposed AA4 capital expenditure for the project would be incurred by a prudent service provider acting efficiently in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services, as is required under rule 79(1)(a) of the NGR.

760. The NPV model of the operating expenditure savings from the Clean Energy Innovation Hub project, which ATCO submits shows an NPV of operating expenditure savings of $0.9 million over a 25 year period, does not consider the full costs of the project. ATCO described its approach to constructing the NPV model as follows:[331]

761. The ERA considers that a prudent service provider acting efficiently would also consider the capital costs of implementing a project in evaluating whether or not to invest in that project, rather than only considering the associated operating expenditure and operating expenditure savings. ATCO's original business case for the Clean Energy Innovation Hub shows that when capital expenditure is included, the NPV of the project is negative.[332]

762. The ERA's conclusions on the NPV model for the Clean Energy Innovation Hub are supported by the opinion of its technical advisor, EMCa:[333]

> The operating costs savings are likely to be reasonable estimates, albeit ATCO has selected benefits at the upper end of the identified range. Whilst ATCO's sensitivity analysis of these inputs in its NPV model indicates a reasonable payback period, our primary concern is the exclusion of any capital expenditure for the analysis. …
>
> Based on the provided costs benefit analysis, the long-term benefits to gas consumers do not currently outweigh the costs within a reasonable assessment period.

763. Section 28(1)(b)(iii)(A) of the NGL specifies that if the ERA is making a designated reviewable regulatory decision, and there are two or more possible decisions that will or are likely to contribute to the achievement of the national gas objective, then the ERA must make the decision that "will or is likely to contribute to the achievement of the national gas objective to the greatest degree". The national gas objective 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,

331 ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, *Attachment 05.106 AA4 Compliance Summary: Clean Energy Innovation Hub CEIH – CONFIDENTIAL,* 12 June 2019, p. 12.

332 ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, *Attachment 05.108 AA4 Compliance – N003. Business Case – CEIH – 05.2018,* 12 June 2019.

333 Energy Market Consulting Associates, Review of Technical Aspects of the Proposed Access Arrangement, October 2019, paragraphs 111-112.

quality, safety, reliability and security of supply of natural gas". The ERA therefore considers that it must evaluate any proposed additions to a service provider's regulatory asset base in terms of their potential contributions to the long-term interests of natural gas consumers. The ERA is not satisfied that the savings and other benefits ATCO submitted would arise from the Clean Energy Innovation Hub would justify the proposed capital expenditure for the project and thereby benefit consumers of natural gas.

764. The ERA considers that the Clean Energy Innovation Hub is not justified under rules 79(1)(a) and 79(2)(a) of the NGR. The ERA has analysed ATCO's compliance summaries and business case and concludes that, with inclusion of the capital expenditure on the project, the business case fails to be NPV positive (paragraph 752).[334] ATCO has not adequately justified the benefits of the Clean Energy Innovation Hub. The ERA analysed the business case[335] and compliance summaries and found that even though the operational expenditure savings have been identified the net benefit of the project to consumers is not justified. The ERA considers that the economic value is not positive. Consistent with EMCa's technical advice the ERA considers that ATCO has failed to demonstrate that this project represents an efficient cost and that the benefits of the project are likely to materialise to justify the investment. The ERA therefore does not consider the expenditure is justifiable under rule 79(2)(a) of the NGR

765. As noted at paragraph 755, the ERA does not consider that the proposed capital expenditure is for pipeline services. In any event, the ERA does not consider that the expenditure would be incurred by a prudent service provider acting efficiently to achieve the lowest sustainable cost of providing services. The expenditure therefore does not satisfy the criteria for conforming capital expenditure set out in rule 79(1)(a) of the NGR and nor is it justified under rule 79(2)(a) of the NGR. The $[redacted] million proposed capital expenditure for the Clean Energy Innovation Hub has therefore not been included in ATCO's opening capital base for AA5.

### *Information technology capital expenditure*

766. Based on the information supplied by ATCO in response to the draft decision, and for the reasons set out below, the ERA has concluded that $29.7 million of proposed IT capital expenditure for AA4 included in ATCO's revised proposal satisfies the criteria for conforming capital expenditure under rule 79(1) of the NGR.[336] Therefore, $29.7 million for IT capital expenditure has been included in ATCO's opening capital base for AA5, as shown in Table 98.

[334] ATCO, 2020-24 Revised Plan (Access Arrangement Information), ATCO 05.108 AA4 – Compliance summaries – supporting documents CONFIDENTIAL, N003 Business Case – CEIH – 05.2018, 12 June 2019.

[335] ATCO, 2020-24 Revised Plan (Access Arrangement Information), ATCO 05.108 AA4 – Compliance summaries – supporting documents CONFIDENTIAL, N008 and N009 CEIH NPV Option 2-En Sav_10 yr and CEIH NPV Option 2 En Sav_25 yr Spreadsheets 12 June 2019.

[336] This includes the adjusted amount of capitalised overhead which the ERA has concluded should be considered conforming capital expenditure and therefore included in ATCO's opening capital base for AA5 as outlined in paragraphs 785 to 786.

***Adjustments to IT program***

767. In its response to the ERA draft decision ATCO submitted that it incurred $29.84 million[337] in capital expenditure and that this expenditure is conforming capital expenditure under rules 79(1)(a) and 79(2)(c)(i), (ii) and (iii) of the NGR. The ERA considers that $29.68 million[338] of incurred capital expenditure for the adjustments to the IT program satisfies the criteria for conforming capital expenditure set out in rules 79(1)(a) and 79(2)(c)(i), (ii) and (iii) of the NGR.

768. In its draft decision, the ERA considered that $1.3 million capital expenditure of $30.2 million in total IT capital expenditure was non-conforming.

769. In its review of ATCO's revised proposal, EMCa observed that there was a:[339]

> … large number of changes to the IT program, primarily in 2018 and 2019, that has the effect of reducing the estimated capex from $30.2 to $29.8m (check EMCa report), including:
>
> - changes in estimated cost for the remainder of AA4;
> - removal of some projects (e.g. Digital Portals and Smart Forms, and Network Digitisation & Intelligence Program);
> - new projects added (e.g. Identify & Access Management, and Human Capital Management); and
> - small variances to historical expenditure.

770. Whilst EMCa did not review each line item in ATCO's revised proposal, it considered that the program required sufficient flexibility to respond to the highest value projects for the business.

771. Consistent with the findings in EMCa's initial report, ATCO demonstrated how its approval and delivery of IT projects aligned with its investment governance framework.

772. Based on EMCa's advice, and considering ATCO's approval and delivery of the IT projects aligned with ATCO's investment governance framework, the ERA considers that the revised expenditure for the IT capital expenditure program is conforming capital expenditure according to rule 79(1)(a) and 79(2)(c)(i)(ii)(iii) of the NGR. The capital expenditure incurred for this project during AA4 has therefore been included in the AA5 opening capital base. The ERA approves $29.68 million as conforming and ATCO's revised proposal is for $29.84 million. The difference is the adjustment made to ATCO's proposed figure which is converted to 2019 real dollars using ATCO's assumption about inflation for 2019. The ERA has adjusted to 2019 real dollars using the inflation assumption for 2019 that the ERA use. This adjustment is explained in the total revenue section paragraph 267.

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337 ATCO states this figure is $30.2 million, with the difference between $30.2 million and $29.84 million explained in paragraph 744. ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 41.

338 Overheads not applied to IT projects.

339 Energy Market Consulting Associates, *Review of Technical Aspects of the Proposed Access Arrangement, October 2019*, October 2019, p. 21, paragraph 129.

**Table 99: AA4 information technology capital expenditure ($ million real 2019)**

| | Jul-Dec 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Total |
|---|---|---|---|---|---|---|---|
| ATCO's proposed capex | 5.3 | 3.1 | 8.8 | 7.7 | 2.7 | 2.2 | 29.8 |

*Source: ATCO Revised Plan Table 5.4*

### *Telephony upgrade*

773. In its response to the draft decision ATCO considered that $[redacted] million is conforming capital expenditure under rule 79(1)(a) and 79(2)(c)(iii) of the NGR. The ERA considers that $[redacted] million should be included in the opening capital base as it conforms with rules 79(1)(a) and 79(2)(c)(iii) of the NGR.

774. The ERA has evaluated the information provided by ATCO on the telephony upgrade project and, based on this information and technical advice received from EMCa, considers that the proposed AA4 capital expenditure for this project would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services.[340] The ERA agrees with ATCO's submission that the project is necessary to comply with its regulatory obligations and requirements and is therefore justified under rule 79(2)(c)(iii) of the NGR. The proposed [redacted] million of capital expenditure for this project has therefore been included in ATCO's AA5 opening capital base under rule 79(1) of the NGR.

### *GIS upgrade*

775. ATCO submitted that the GIS upgrade is conforming capital expenditure of $[redacted] million under rules 79(1)(a) and 79(2)(c)(i), (ii) and (iii) of the NGR. The ERA is of the view that $[redacted] million should be included in the opening capital base as it conforming capital expenditure under rules 79(1)(a) and 79(2)(c)(i), (ii) and (iii) of the NGR.

776. Based on the information provided by ATCO on the GIS upgrade and technical advice received from EMCa, the ERA considers that the proposed $[redacted] million of AA4 capital expenditure for the GIS upgrade is necessary to maintain and improve the safety of services, maintain the integrity of services and to comply with ATCO's regulatory obligations and requirements as submitted. The expenditure is therefore justified under rules 79(2)(c)(i),79(2)(c)(ii) and 79(2)(c)(iii) of the NGR. The ERA also concludes that the proposed AA4 capital expenditure for the project would be incurred by a service provider acting efficiently, in accordance with accepted good industry practice to achieve the lowest sustainable cost of providing services.[341] The proposed [redacted] million of capital expenditure for this project has therefore been

[340] EMCa's technical opinion was the telephony upgrade capital expenditure was an essential routine business as usual expenditure which was likely to satisfy the capital expenditure criteria. Energy Market Consulting Associates, *Review of Technical Aspects of the Proposed Access Arrangement*, March 2019, paragraphs 312.

[341] EMCa's technical opinion was that it is reasonable for ATCO to incur expenditure for the planning and scoping phase of a large IT project prior to its commencement and that ATCO's proposed expenditure complies with the criteria for conforming capital expenditure. Energy Market Consulting Associates, *Review of Technical Aspects of the Proposed Access Arrangement*, October 2019, paragraphs 127-128.

included in ATCO's AA5 opening capital base in accordance with rule 79(1)(a) and 79(2)(c)(i), (ii) and (iii) of the NGR.

### *AA4 overhead capitalisation*

777. In its response to the ERA draft decision ATCO submitted that its overhead capitalisation of $50.7 million should be included in the opening capital base for AA5. ATCO's reported overheads were $78.9 million for the AA4 period after correcting for the ERA's adjustment of $9 million and total direct labour of $19.2 million revised ATCO considers that capitalised overheads is $50.7 million.[342]

778. In its response to the draft decision, ATCO submitted that EMCa misrepresented the information provided in its review of the $76.0 million of overheads in its initial proposal. ATCO reiterated that $19.2 million of this was direct labour and that this overstated the overhead amount. EMCa considered that it had correctly understood the situation.

779. As ATCO described in its revised proposal, from January 2018, it implemented a time writing tool and used the information collected from 2018 to back-cast a direct labour overhead amount for 2015 to 2017. ATCO proposed that this amount should be capitalised as conforming AA4 capital expenditure. Relative to the basis on which ATCO's AA4 allowance was determined, this would result in $19.2 million being re-allocated from operational expenditure (where it was accounted for when ATCO submitted its AA4 access arrangement) to capital expenditure. ATCO argued that this amount of $19.2 million should be removed from capital expenditure overheads and added directly to the qualifying capital expenditure, as occurred in 2018.

780. EMCa considered that ATCO's back-cast assessment of a $19.2 million direct labour cost should not be added to the conforming AA4 capital expenditure. EMCa considered that the regulatory capitalisation policy applied to a forecast allowance then to actual expenditure incurred after the allowance is determined, should be on the same basis and should apply the same regulatory accounting policy.[343]

781. The ERA understands the initiative that ATCO has taken to better account for overhead personnel time. The ERA maintains the view that the labour costs that ATCO now seeks to capitalise into its regulatory asset base were already recovered through the provision made as part of the ERA AA4 final decision operational expenditure allowance.

782. ATCO's introduced time sheeting in 2018, which resulted in increased clarity of direct overhead labour costs. According to ATCO, the resulting new direct labour costs should be allocated to capital expenditure in 2018 and 2019.

783. EMCa estimated the direct labour contribution by applying the average percentage of such costs that ATCO applied in its back-cast estimate for 2015 to 2017, after first deducting ATCO's stated true overheads for those years.[344]

784. The ERA calculates the overhead reduction adjustment as $41.08 million. This includes the $9 million adjustment for direct labour as shown in Table 100. Table 100 shows:

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342 ATCO, 2020-24 Revised Plan (Access Arrangement Information), 12 June 2019, p. 49.

343 Energy Market Consulting Associates, *Review of Technical Aspects of the Proposed Access Arrangement*, October 2019, paragraph 53.

344 'True' overheads as defined by ATCO is reported overheads minus direct labour.

- Overhead calculated by ATCO in its response to the draft decision
- Adjustments for direct labour overhead excluding the project adjustment of $0.18 million (a)
- Project adjustment
- Direct labour overheads adjustment (c)
- The overhead reduction (a+b+c)

**Table 100: Capitalised overheads and ATCO adjustment ($ million, real 31 December 2019)**

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Total |
|---|---|---|---|---|---|---|---|
| *Overhead calculated by ATCO response to draft decision* | 5.90 | 9.75 | 10.26 | 9.91 | 12.40 | 11.50 | 50.72 |
| *Adjustments for Overhead direct labour (excluding adjustment of $0.18 m in the project adjustment) (a)* | 0.00 | -5.85 | -6.64 | -6.69 | -6.75 | -6.18 | -31.90 |
| Project adjustment (b) | | | | | | | -0.18 |
| Direct labour Overheads adjustment (c) | -1.20 | -1.00 | -1.50 | -1.00 | -2.60 | -1.70 | -9.00 |
| *Overhead reduction (a+b+c)* | -1.20 | -6.85 | -8.14 | -7.69 | -9.35 | -7.88 | -41.08 |

*Source: ERA*

785. Consistent with its the final decision for AA4, the ERA considers that the capitalised overhead should equate to 15 per cent of 92 per cent of network sustaining and growth capital expenditure based on previous decisions by the ERA. The overhead capitalisation percentage of 15 per cent was based on benchmarks from AER decisions at the time. In its final decision for AA4 the ERA determined that:[345]

> The Authority has calculated its capitalised indirect overheads by applying 15 per cent to 92 per cent of the Authority's approved sustaining and growth capital expenditure.

786. Consistent with the ERA's draft decision, the ERA is of the view that the direct labour component of the capitalised overhead should not be capitalised as the direct labour component of overheads has already been recovered by ATCO in the previous regulatory period (AA4) through operating expenditure forecasts. The direct labour component allocated to capital expenditure as proposed by ATCO was already determined in the operational expenditure for AA4. Operating expenditure forecasts are a building block of total revenue and the expenditure was therefore taken into account in the determination of reference tariffs for each year of AA4. The ERA considers that allowing for the capitalisation of the direct labour previously determined in the operational expenditure for AA4 would be accounting for this expense twice. Allowing the future recovery of these overheads through capitalisation would therefore not be consistent with the national gas objective given these overheads were included in the revenue recovered through AA4 reference tariffs. This would be

[345] ERA, *Final Decision on Proposed Revisions to the Access Arrangement for the Mid-West and South-West Gas Distribution Systems*, 30 June 2015, p. 178.

contrary to the long-term interests of consumers. Therefore, the ERA has determined not to include this direct labour component in the opening capital base for AA5.

### *Speculative capital expenditure*

787. In its revised proposal, ATCO suggested that, if the ERA did not accept ATCO's AA4 capital expenditure, then that expenditure should be added to the speculative capital expenditure account.[346]

788. Rule 84(1) of the NGR provides that "a full access arrangement may provide that the amount of non-conforming capital expenditure…is to be added to a notional fund".

> **84 Speculative capital expenditure account**
>
> (1) A full access arrangement may provide that the amount of non-conforming capital expenditure, to the extent that it is not to be recovered through a surcharge on users or a capital contribution, is to be added to a notional fund (the **speculative capital expenditure account**).
>
> (2) The balance of the speculative capital expenditure account must be adjusted annually by applying to the balance a rate that is the same as the allowed rate of return for the regulatory year in which the adjustment is made.
>
> (3) If at any time the type or volume of services changes so that capital expenditure that did not, when made, comply with the new capital expenditure criteria becomes compliant, the relevant portion of the speculative capital expenditure account (including the return referable to that portion of the account) is to be withdrawn from the account and rolled into the capital base as at the commencement of the next access arrangement period.

789. Rule 84 of the NGR refers to "non-conforming capital expenditure". The definition of capital expenditure refers to “costs and expenditure of a capital nature incurred to provide, or in providing, pipeline services”.[347] Applying this definition to the operation of rule 84(1) of the NGR means that where a service provider's proposed capital expenditure is non-conforming because it does not comply with the conforming capital expenditure criteria in rule 79 of the NGR, to be added to the speculative capital expenditure account the expenditure must be costs or expenses incurred to provide (or in providing) pipeline services.

790. Pipeline services are services provided by means of a pipeline (including a haulage service and a service providing for or facilitating the interconnection of pipelines) and services ancillary to services provided by means of a pipeline.[348]

791. In its revised proposal, ATCO proposed to include the expenditure for the Blue Flame Kitchen in the speculative capital expenditure account. However, ATCO did not provide any evidence which adequately supported that the $0.1 million of expenditure it incurred during AA4 for the Blue Flame Kitchen, was incurred for the provision of pipeline services or may be used in the future in connection with the provision of pipeline services. ATCO did not supply any additional information in its revised proposal on what the $0.1 million of expenditure covered. The ERA therefore maintains its draft decision position that the Blue Flame Kitchen was primarily positioned as a marketing project and learning facility for primary school children. Accordingly, the ERA concludes that the $0.1 million of expenditure ATCO incurred

346 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, pp. 41 & 59.

347 NGR, Part 9, Division 1, Clause 69.

348 NGL, Section 2.

during AA4 for the Blue Flame Kitchen will not be added to the speculative capital expenditure account.

792. ATCO has also not provided information which adequately demonstrates that the $9.0 million of capitalised overheads which it has proposed be added to the speculative capital expenditure account was incurred for the provision of pipeline services or may be used in the future in connection with the provision of pipeline services.

793. The ERA considers that $41.08 million in total for the direct labour component of overheads (see Table 100) cannot be treated as capital expenditure because ATCO changed the capitalisation policy during AA4. The ERA's AA4 final decision, and approved tariffs, included operating expenditure forecasts that were based on a capitalisation policy of 15 per cent for overheads. To change the capitalisation policy midway through an access arrangement period may allow ATCO to effectively recover the same amount twice if the ERA approves it as conforming capital expenditure now, in the access arrangement period (that is, AA5) or by allowing it to be recovered in a later access arrangement period through a speculative capital expenditure account. The ERA considers that to do so would be inconsistent with the national gas objective as this would not be in the long-term interests of consumers.

794. For the reasons stated in paragraphs 792 to 793, the ERA has concluded that ATCO has not provided information that demonstrates that the amount of overheads are capital expenditure for the purposes of the NGR and therefore should not be added to a speculative capital expenditure account.

795. ATCO also proposed more generally that any AA4 capital expenditure which the ERA finds does not satisfy the criteria for conforming capital expenditure, and which ATCO does not recover through a surcharge on users or a capital contribution, be added to a speculative capital expenditure account.[349] In this final decision, the ERA has found expenditure that does not satisfy the criteria of conforming capital expenditure as it is not considered 'capital expenditure' in accordance with the definition of capital expenditure in the NGR.[350] This is because it is not expenditure incurred (or to be incurred) for the provision of pipeline services. Therefore, this expenditure cannot be considered for inclusion in the speculative capital expenditure account.

796. The ERA considers that non-conforming capital expenditure for the purpose of providing pipeline services may be added to the speculative capital expenditure account, unless adding the amount of the expenditure to the account would be inconsistent with the national gas objective. The ERA, in exercising its functions and powers in respect of ATCO's access arrangement, must exercise its functions and powers in a manner that will, or is likely to, contribute to the national gas objective.[351]

### *Conclusion*

797. ATCO proposed $484.8 million as conforming capital expenditure according to rule 79 of the NGR. The ERA's assessment is stated in paragraphs 683 to 792. The ERA has assessed ATCO's revised proposed opening capital base for AA5 pursuant to rules 77 and 79 of the NGR and $448.30 million is considered conforming capital

[349] ATCO, *2020-24 Revised Plan Access Arrangement Information for ATCO's Mid-West and South-West Gas Distribution System,* 12 June 2019, p. 59.

[350] NGR, rule 69.

[351] NGL, section 28(1)(a).

expenditure in accordance with rule 79 of the NGR and will be included in the opening capital base for AA5.

798. In its assessment, the ERA considers that its recalculation of the capitalised overhead and the adjustment to ATCO's AA4 capital expenditure satisfies rule 79(1) of the NGR (see Table 101). This calculation of the adjustment for the capitalised overhead is consistent with the NGR.

799. The ERA considers that the capitalised overhead should exclude operational expenditure given to ATCO in the previous regulatory period and should not be capitalised in the asset base for AA4.

800. The Blue Flame Kitchen project capital expenditure is not related to the provision of reference services and therefore should not be included in the speculative capital expenditure account.

**Table 101: AA4 summary adjustment table excluding equity raising costs ($ million real as at 31 December 2019)**

| | 2014 Jul-Dec | 2015 | 2016 | 2017 | 2018 | 2019 (forecast) | Total |
|---|---|---|---|---|---|---|---|
| Network sustaining | 13.94 | 29.42 | 37.95 | 45.12 | 44.34 | 38.45 | 209.22 |
| Network growth | 21.00 | 37.20 | 31.31 | 26.33 | 23.76 | 28.56 | 168.16 |
| Information technology | 5.28 | 3.05 | 8.75 | 7.69 | 2.68 | 2.22 | 29.68 |
| Structures and equipment | 2.10 | 3.87 | 6.08 | 4.95 | 14.34 | 8.94 | 40.28 |
| Equity raising costs | - | - | - | - | 0.28 | 0.68 | 0.96 |
| **Total** | **42.32** | **73.53** | **84.09** | **84.10** | **85.41** | **78.84** | **448.30** |

*Source: ERA's analysis. Some numbers may not add due to rounding.*

801. The ERA considers that total capital expenditure for AA4, including ATCO's overheads but excluding the Clean Energy Innovation Hub, is $480.39 million. The ERA also has calculated that the overhead direct labour capitalisation adjustment is $32.1 million.

802. In its review of ATCO's proposal, the ERA concluded that the overhead capitalisation of $32.1 million should not be included in AA4 capital expenditure and the regulatory asset base as ATCO's allowance for operational expenditure in AA4 included this expenditure. EMCa considered:

> ATCO's proposed AA4 capex includes capitalisation of an overhead amount for 'direct labour' that was treated as 'opex' for the purpose of establishing ATCO's AA4 regulated revenue. For the reasons described in that section 2.3 of EMCa's, we consider that the 'direct labour' component of ATCO's proposed AA4 capex, which totals $32.1 million, should not be accepted as 'conforming capex'.

803. The ERA considers that the overhead capitalisation of $32.1 million should not be included in AA4 capital expenditure and the regulatory asset base as ATCO's operational expenditure for AA4 already included an allowance for this expenditure. ATCO proposed in its response to the ERA draft decision that non-conforming capitalised overhead should be included in the speculative expenditure account. The

ERA has determined that it would be inconsistent with the national gas objective to allow ATCO to capitalise these expenses and seek a return on capital where ATCO has already been compensated through the previous operational expenditure allowance in the AA4 regulatory period. ATCO has also not provided information which adequately supports that the direct labour component of capitalised overheads (which it proposed be added to the speculative capital expenditure account) was incurred for the provision of pipeline services.

804. The ERA's amended conforming capital expenditure has been adjusted for the ERA's inflation indices as shown Table 37.

**Table 102: ERA's final decision amended conforming capital expenditure by AA4 asset class ($ million real as at 31 December 2019)**

| Asset class | Jul to Dec 2014 | 2015 | 2016 | 2017 | 2018 | 2019 (forecast) | Total |
|---|---|---|---|---|---|---|---|
| High pressure mains – steel | 0.75 | 0.53 | 2.38 | 6.43 | 5.38 | 2.55 | 18.01 |
| High pressure mains – PE | 1.17 | 1.40 | 0.72 | 0.44 | 0.56 | - | 4.29 |
| Medium/low pressure mains | 13.62 | 32.05 | 31.02 | 30.74 | 32.85 | 26.73 | 167.00 |
| Regulators | 1.51 | 2.60 | 4.03 | 4.75 | 1.46 | 0.74 | 15.08 |
| Secondary gate stations | 0.01 | 0.02 | - | 0.19 | 0.66 | 5.02 | 5.90 |
| Buildings | 0.17 | 0.45 | 0.68 | 1.43 | 9.43 | 2.87 | 15.02 |
| Meter and services pipes | 17.88 | 29.75 | 30.00 | 28.18 | 26.37 | 31.37 | 163.56 |
| Equipment and vehicles | 0.40 | 1.23 | 1.06 | 1.05 | 1.58 | 0.49 | 5.80 |
| Vehicles | 1.53 | 1.34 | 2.15 | 2.05 | 3.36 | 3.56 | 13.99 |
| Information technology | 5.28 | 3.30 | 9.70 | 8.42 | 2.68 | 2.22 | 31.60 |
| Telemetry and monitoring | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Land | 0.00 | 0.87 | 2.36 | 0.42 | 0.01 | 2.02 | 5.69 |
| Equity raising costs | 0.00 | 0.00 | 0.00 | 0.00 | 0.28 | 0.68 | 0.96 |
| **Total** | **42.32** | **73.53** | **84.09** | **84.10** | **85.41** | **78.84** | **448.30** |

*Source: ERA's analysis. Some numbers may not add due to rounding. Includes overheads.*

**Table 103: ERA's final decision amended opening capital base at 1 January 2020 ($ million real as at 31 December 2019)**

| | Jul to Dec 2014 | 2015 | 2016 | 2017 | 2018 (forecast) | 2019 (forecast) |
|---|---|---|---|---|---|---|
| Opening capital base AA4 | 1,096.18 | 1,120.52 | 1,154.44 | 1,194.38 | 1,231.29 | 1,266.40 |
| Plus: Capital expenditure | 42.32 | 73.53 | 84.09 | 84.10 | 85.41 | 78.84 |
| Less: Depreciation | (17.93) | (39.61) | (43.95) | (46.97) | (49.78) | (52.87) |
| Less: Asset disposals | (0.04) | (0.02) | (0.20) | (0.21) | (0.52) | - |
| **Opening capital base for AA5** | 1,120.52 | 1,154.44 | 1,194.38 | 1,231.29 | 1,266.40 | 1,292.38 |

*Source: ERA analysis. Some numbers may not add due to rounding.*

**Required Amendment 6**

The opening capital base for AA5 must reflect the values in Table 103 of this final decision. The capital expenditure which ATCO has proposed to include in the speculative capital expenditure account must not be added to the speculative capital expenditure account.

## *Projected capital base*

805. 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 over the period.

806. Rule 79 of the NGR sets out the criteria that must be met for capital expenditure to be considered conforming capital expenditure. Capital expenditure must be equivalent to that incurred by a prudent service provider acting efficiently in accordance with good industry practice to achieve the lowest sustainable cost of providing services, and must be justifiable on economic, safety or regulatory grounds. The criteria that must be met for capital expenditure to be conforming is set out at paragraph 544.

### *ATCO's initial proposal*

807. ATCO proposed a projected capital base of $1,562.5 million as at 31 December 2024. ATCO's calculated values of the projected capital base for the AA5 period are shown in Table 104.

**Table 104: 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 |
| Capital expenditure | 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, Access Arrangement Information, p. 122, Table 13.3.*

808. ATCO forecast $509.3 million of capital expenditure over AA5, which was 2 per cent (or $12.2 million) higher than the capital expenditure projected for the five-and-a-half years of AA4. ATCO's forecasts are shown below in Table 105.

**Table 105: ATCO's forecast AA5 capital expenditure by 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.*

809. ATCO used a bottom-up forecasting approach for each capital expenditure driver category, which comprised sustaining the network, growing the network, information technology and structures and equipment.

810. Of the total ATCO forecast conforming capital expenditure for AA5:

- Network sustaining expenditure accounted for 54.2 per cent ($276.1 million).

- Network growth expenditure accounted for 34.2 per cent ($174.3 million).
- Information technology expenditure accounted for 7.1 per cent (36.1 million).
- Structures and equipment expenditure accounted for 4.5 per cent ($22.7 million).

811. ATCO forecast that it would expand its network by connecting 81,000 new domestic customers and installing 2,300 new commercial meters over AA5.[352]

812. ATCO's mains replacement program during AA5 will continue to replace PVC mains from its networks (which ATCO identified as an unacceptable risk) with polyethylene (PE) mains pursuant to rule 79(2)(c)(i) of the NGR. ATCO noted that the replacement of PVC mains with polyethylene mains would reduce the risk of asset failure, thus reducing reactive maintenance costs and disruption to services.

813. ATCO 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.[353] These projects will focus on maintaining the natural gas supply to ATCO's customers.

814. ATCO forecast $27.3 million for its meter replacement program, which comprises the replacement of about 25,000 domestic meters and 661 commercial meters in AA5 to ensure accuracy retention.[354]

815. ATCO also forecast spending of $36.1 million on information technology over AA5,[355] 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 process through automated workflows including the Meter Identification Reference Number address verification process.

### *Submissions to the ERA*

816. AGL Energy[356] noted that over half of ATCO's proposed $509 million capital expenditure for AA5 was for network asset replacement and performance. AGL had no concerns with ATCO's forecast expenditure for network growth but encouraged the ERA to analyse whether the large investment in asset replacement and improvement was warranted given that ATCO operated with a low level of unaccounted for gas and had forecast reductions in gas demand.

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352 ATCO, *2020-24 Plan Access Arrangement Information for Mid-West and South-West Gas Distribution Systems*, 31 August 2018, p. 110.

353 ATCO, *2020-24 Plan Access Arrangement Information for Mid-West and South-West Gas Distribution Systems*, 31 August 2018, p. 103.

354 ATCO, *2020-24 Plan Access Arrangement Information for Mid-West and South-West Gas Distribution Systems*, 31 August 2018, p. 102.

355 ATCO, *2020-24 Plan Access Arrangement Information for Mid-West and South-West Gas Distribution Systems*, 31 August 2018, Table 12.14, p. 114.

356 AGL Energy Ltd, Submission to the ERA – Submission on the ERA's Issues Paper on proposed revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020-2024, 14 November 2018.

817. AGL expected efficiency improvements in operating expenditure if the forecast asset replacement occurred, given the expected reduction in asset failure and maintenance costs.

818. AGL noted that it relied on the ERA to review the asset replacement programs of networks for efficiency and to avoid advanced asset replacement in the long-term interests of consumers.

819. AGL expected IT capital expenditure to include the enhancements for the Western Australian retail gas market to align with other retail gas markets. AGL encouraged ATCO to revise the proposed expenditure if it did not, because AGL would be disappointed if market initiatives were delayed due to insufficient provisions for expenditure in AA5.[357]

820. Alinta Energy[358] encouraged the ERA to review ATCO's proposed capital expenditure initiatives to ensure that ATCO could undertake the work proposed. Alinta Energy supported the proposed automated meter reading projects to enable meters to be read wirelessly where physical access was restricted.

821. Alinta Energy noted that ATCO proposed increasing network sustaining capital expenditure as a share of total capital expenditure from 49 per cent during AA4 to 54 per cent in AA5. Alinta Energy urged the ERA to consider whether the reliability targets for AA5 justified this increase given some performance targets had been set at levels that could be achieved more easily than those attained over AA4.

822. Kleenheat[359] raised concerns with proposed levels of capital expenditure over AA5. Kleenheat questioned the reasonableness of increases to network sustaining capital expenditures of $54 million or 24.5 per cent, given continued improvements and outperformance in reliability of the network over the AA4 period. The historical trend in the System Average Interruption Frequency Index (SAIFI) has been year-on-year improvements. This appeared to have been achieved with capital expenditure materially in line with limits approved by the ERA in AA4. Kleenheat noted that ATCO also sought to set the target for SAIFI in AA5 at a level above the current trend (that is, an easier target). Kleenheat considered this counter-intuitive but noted that not all of the capital expenditure related to reliability improvements.

823. Kleenheat also questioned the level of capital expenditure on network growth, noting an average cost increase of 10.6 per cent between AA4 and AA5. Kleenheat questioned why the average cost per new connection was expected to rise by nearly 11 per cent if, as ATCO stated, it used historical unit rates to calculate its forecast and these rates included cost-efficiencies from contractor rates.

824. Synergy[360] submitted that the increase in revenue and therefore prices was largely driven by ATCO's significant forecast capital expenditure program. ATCO's revised proposal indicated that the AA5 proposed capital expenditure program is only 2 per cent higher than the capital expenditure ATCO incurred during AA4. Synergy submitted that the AA5 proposed capital expenditure program includes

[357] The AGL submission seems to imply that if it does not include expenditure for enhancement for the Western Australian retail gas market, then it should. The AGL submission does not include the word *not*.

[358] Alinta Energy, *Submission to the ERA – Proposed revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020-2024 – Issues Paper*, 14 November 2018.

[359] Kleenheat, *Submission to the ERA – Kleenheat submission on the proposed revised access arrangement for Mid-West to South-West Gas Distribution System (GDS)*, 13 November 2018.

[360] Synergy, *Submission to the ERA – Response to the issues paper on the proposed revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement*, 14 November 2018.

capital expenditure which is 10 per cent higher than what ATCO incurred during AA4 when measured on an annual basis given AA5 is a five-year period, whereas AA4 covered five and a half years.

825. Synergy noted the AA5 proposal included very little information on the outcomes of the capital expenditure program for customers and there did not appear to be adequate substantiation of how it met the requirements of rules 74 or 79 of the NGR.[361] This made it difficult to assess the reasonableness, prudence or efficiency of the proposed capital expenditure program.

826. Synergy considered that the ERA should review all aspects of the capital expenditure program, not just the network sustaining capital expenditure highlighted in the ERA's issues paper. Synergy recommended that the ERA scrutinise the following areas:

- The 5 per cent (adjusted) increase in growth capital expenditure, despite the modest growth in customer numbers and declining demand expected over the AA5 period.
- The 24 per cent (adjusted) increase in sustaining capital expenditure, despite exceptional reliability and security of supply performance, materially outperforming the benchmarks set for AA4.
- The significant amount of discretionary capital expenditure (for example, IT expenditure which is forecast to increase by 50 per cent).

## *Draft decision*

827. The ERA considered whether ATCO's proposed value of the projected capital base for AA5 met the requirements of the NGR.

828. The ERA appointed technical advisor EMCa to assist with the assessment of ATCO's proposed capital expenditure, operating expenditure, and associated governance processes for this expenditure.

### *Assessment of capital expenditure*

829. ATCO forecast $509.3 million of capital expenditure over the period of AA5 which was equivalent to an average annual expenditure of $101.9 million. This was 13 per cent higher than the average annual expenditure over the last five years. The major increase between the periods was for forecast network sustaining expenditure.

830. The ERA assessed ATCO's proposed capital expenditure forecast for AA5 in accordance with the NGR using a three-step framework:

- Consider whether the expenditure satisfies the prudent service provider test set out in rule 79(1)(a) of the NGR.
- Evaluate whether the expenditure is justifiable on the grounds set out in rule 79(2) of the NGR.
- Assess whether forecasts or estimates comply with rule 74(2) of the NGR.

[361] Rule 74 requires that information in the nature of a forecast or estimate must be supported by a statement of the basis of the forecast or estimate. A forecast or estimate must be arrived at on a reasonable basis and must represent the best forecast or estimate possible in the circumstances.

Rule 79 establishes the criteria for new capital expenditure.

831. The ERA considered information provided by ATCO, public submissions and EMCa's report to determine the amount of capital expenditure which met the requirements of the NGR.

832. The ERA reviewed ATCO's forecast capital expenditure under the following cost drivers:

- Sustaining expenditure
- Growth expenditure
- Structures and equipment expenditure
- Information technology expenditure

### *Sustaining capital expenditure*

833. ATCO forecast sustaining capital expenditure for AA5 of $276.1 million, split between the following categories:

- Asset replacement:
  - $127.4 million for PVC mains replacement
  - $27.3 million for meter replacement program
  - $33.6 million for end-of-life replacement program.
- Asset performance and safety:
  - $49.1 million for security of supply projects
  - $12.6 million for SCADA projects
  - $13.5 million for Parmelia Gas Pipeline (PGP) interconnection projects
  - $12.7 million for other network sustaining projects.

834. ATCO's sustaining capital expenditure is driven by its safety case and the need to reduce risk to as low as reasonably practicable. ATCO's safety case has been prepared to comply with AS4645.1:2008 Gas distribution networks - Part 1: Network management, AS2885.1:2007 Pipelines–Gas and liquid petroleum - Part 1: Design and constructions and AS2885.3:2001 Pipelines–Gas and liquid petroleum – Part 3: Operation and maintenance. The Director of EnergySafety accepted the safety case as forming the primary reference to meet the safety and technical compliance of the ATCO gas network on 28 July 2011. The safety case was last revised on 1 December 2017 to incorporate feedback from EnergySafety.

835. EMCa noted that ATCO's safety case was prepared to comply with AS4645.1:2008 (among other things) and that ATCO's risk management documents referred variously to three main sources on managing network risk: AS4645.1:2008, AS4645.1:2018, and a British Standard Institution standard.

836. EMCa noted that it had not seen enough reasoning from ATCO to support its alternative measures, definitions and criteria. EMCa referred to the AS4645.1:2018 measures, definitions and criteria in its assessment of ATCO's proposed AA5 capital expenditure.

837. A copy of ATCO's risk matrix is set out below in Figure 12. The risk matrix and risk assessment criteria published by ATCO is materially the same as AS4645.1:2008. A risk level is determined based on an assessment of the likelihood of frequency and

the severity or consequence of the risk. These terms are used throughout the ERA's assessment of sustaining capital expenditure.

**Figure 12: ATCO's risk matrix**

| | CONSEQUENCE | | | | |
|---|---|---|---|---|---|
| FREQUENCY | 1 Trivial | 2 Minor | 3 Severe | 4 Major | 5 Catastrophic |
| 5 Frequent | 5 Low | 10 Intermediate | 15 High | 20 Extreme | 25 Extreme |
| 4 Occasional | 4 Low | 8 Low | 12 Intermediate | 16 High | 20 Extreme |
| 3 Unlikely | 3 Negligible | 6 Low | 9 Intermediate | 12 High | 15 High |
| 2 Remote | 2 Negligible | 4 Negligible | 6 Low | 8 Intermediate | 10 High |
| 1 Hypothetical | 1 Negligible | 2 Negligible | 3 Negligible | 4 Low | 5 Intermediate |

*Source: ATCO Gas Australia Risk Management Matrix, page 2*

838. Once a risk level has been allocated to a project, ATCO then uses its risk acceptance criteria to determine what needs to occur, if anything, to mitigate the risk. ATCO's risk acceptance criteria is set out below in Figure 13.

**Figure 13: ATCO's risk acceptance criteria table**

| | |
|---|---|
| Extreme | Modify the threat, frequency or consequence so that the risk is reduced to "Intermediate" or lower.<br>Reduce the risk immediately.<br>Management responsibility must be specified. |
| High | Modify the threat, frequency or consequence so that the risk is reduced to "Intermediate" or lower.<br>Management responsibility must be specified. |
| Intermediate | Where the risk rank is confirmed to be "Intermediate" and, if possible, modify the threat, frequency or consequence to reduce the risk rank to "Low" or "Negligible".<br>Where the risk cannot be reduced to "Low" or "Negligible", action shall be taken to:<br>a. Remove threats, reduce frequencies and/or reduce severity of consequences where reasonably practicable to do so; and<br>b. Demonstrate ALARP.<br>Management responsibility must be specified. |
| Low | Review risk control system and procedure and monitor to determine if the risk rating changes and requires reassessing.<br>Management responsibility must be specified. |
| Negligible | Review the risk rating at the next review interval. Manage with routine procedures |

*Source: ATCO Risk Management Framework, Appendix B.*

839. EMCa considered that the applicable Australian standard was AS4645.1:2018 and compared ATCO's measures and definitions with this standard. EMCa concluded that:

- ATCO's measures of risk likelihood were more risk averse than the Australian Standard.
- ATCO's and the Australian Standard AS4645.1 risk consequence measures were the same for the service supply (interruption to continuity) dimensions, and similar for the people (human injury or fatality) dimension.

- Risk matrix and risk assessment criteria published by ATCO and AS4645.1:2018 were materially the same.
- ATCO's guidance on the application of the "as low as reasonably practicable" test was inadequate.

***PVC mains replacement***

840. The largest program in the proposed AA5 network sustaining capital expenditure program is for PVC mains replacement. ATCO proposed to spend $127.4 million on replacing 305km of PVC mains and service connections over the AA5 period.

841. Replacement is intended to reduce safety-related risk for loss of containment, specifically of a fatality from exploding leaked gas in built-up areas. ATCO derived the risk of fatality from individual pipe sections (expressed as fatality risk per km per year) using its Mains Replacement tool.

842. ATCO's Mains Replacement tool is a software application that considers asset specification, historical leak data, remaining useful life, and risk from each pipeline to the public. ATCO stated that the semi-quantitative risk outcomes from the tool reflected the risk to public safety from each pipeline segment and were correlated to the ATCO Risk Management Matrix in accordance with its Safety Case.

843. In its proposal, ATCO submitted that the PVC pipeline that was considered to present a high risk was replaced in the AA4 period. One of the differences between ATCO's definitions and AS4645.1:2018 is that ATCO introduced risk rating definitions of upper intermediate and lower intermediate.[362]

844. ATCO proposed to replace 171km of PVC mains in AA5 that presented as upper intermediate plus 106km of other PVC mains identified by the Mains Replacement tool as having a predicted leak rate higher than the average rate of the intermediate zone, as well as an additional 10 per cent of PVC mains to achieve program efficiencies.

845. EMCa reviewed ATCO's proposal on AS4645.1:2018 and considered that the 277km of PVC mains regarded as intermediate was likely to be prudent and efficient expenditure from the information provided. However, ATCO did not provide adequate information regarding the risk profile of the additional 10 per cent (28km, $11.7 million) of mains to be replaced for "efficiency purposes". EMCa considered this expenditure was not prudent and efficient from the information provided.

846. The ERA reviewed ATCO's proposal including the options analysis undertaken and EMCa's analysis. The options ATCO considered included replacing the whole 1,890km of PVC mains identified as intermediate risk at a cost of $700 million or replacing fittings along the selected 305km of PVC mains, rather than replacing the pipe itself, at a cost of $251 million.

847. The ERA reviewed the options for PVC mains replacement and considered that ATCO's preferred option of replacing the leakiest pipe was prudent and efficient. The ERA was satisfied that the 277km of PVC mains identified for replacement at a cost of $116 million met the criteria for conforming capital expenditure.

[362] Upper and lower intermediate are not set out in Figure 13 but on page 99 of its 2020-24 Plan (Access Arrangement Information), ATCO notes that an 'upper intermediate' risk is an intermediate risk that has the potential to move towards, or into, the 'high' risk category.

848. However, the ERA was not satisfied that the 28km ($11.7 million) of proposed PVC mains replacement expenditure to be undertaken for program efficiencies met the criteria of conforming capital expenditure. The concept of program efficiencies makes sense in some situations, but in this situation ATCO did not adequately justify the case to undertake the extra 28km of replacement. The ERA required this to be removed from the projected capital base.

***Meter replacement program***

849. ATCO proposed to spend $26.6 million replacing [redacted] domestic meters over the AA5 period and $0.6 million replacing [redacted] rotary-type commercial meters.

850. The driver for replacing the domestic meters was compliance with regulatory requirements for domestic and commercial meters in Gas Standards Regulations Part 3 – Metering (section 16),[363] which requires all domestic meters to be replaced at intervals not exceeding 18 years. Meters can be replaced at an older age if approved by the Director of Building and Energy.

851. ATCO received approval in September 2008 to extend replacement of M6EW meters' in-service life to 25 years with ME602 meters' in-service life remaining at 18 years to replacement. The meters ATCO identified for replacement during AA5 will reach the approved end of service life during the period.

852. The driver for replacement of the [redacted] commercial rotary meters is to ensure metering accuracy.

853. For domestic meter replacement, ATCO considered a single alternative: to take no action. ATCO assessed the risk of this option as high, on the basis of severe reputational and financial consequences. EMCa considered this rating to be reasonable.

854. EMCa asked why ATCO had not presented the option of seeking a further extension. After receiving ATCO's response, EMCa was satisfied that the prospects for further extensions of time for either meter types was low.

855. For the commercial meter replacement, ATCO considered the alternative of taking no action. EMCa noted that ATCO's assessment of zero cost for the no action options contradicted statements in the main body of its business case, which stated that refurbishment was required as an alternative to replacement. The risk of no action was rated by ATCO as low.

856. The ERA considered ATCO's proposed expenditure for the domestic and commercial meter replacement programs. For the domestic meters, the ERA noted ATCO's compliance obligation and that it had already previously received an extension for replacement for one type of meter.

857. The ERA was satisfied that the $26.6 million for replacement of domestic meters in the AA5 period was conforming capital expenditure to be added to the projected capital base.

858. The ERA considered the commercial replacement meter program expenditure of $0.6 million, noting that as the risk was regarded by ATCO as low and there was no

[363] *Gas Standards (Gas Supply and System Safety) Regulations 2000*.

cost for not replacing the meters, the alternative 'no action' approach was a better option than ATCO's recommended replacement option.

859. Also, ATCO's own documentation noted that refurbishment was an alternative to replacement but this was not proposed. For this reason, the ERA determined that the $0.6 million for replacement of commercial meters did not satisfy the criteria of rule 79 of the NGR to be regarded as conforming capital expenditure for inclusion in the projected capital base.

***End-of-life replacement program***

860. ATCO proposed to spend $17.7 million replacing [redacted] risers and services each year in the AA5 period. ATCO commenced replacing risers and services that leaked gas with fully fused PE replacements in 2014. Approximately 1,600 leaking services were replaced each year based on reactive leak detection.

861. ATCO noted that the results of its Leak Survey indicated there were possibly an additional 1,600 leaks per annum from this source and that leak surveys should be undertaken to proactively detect the leaking risers and services.

862. EMCa considered ATCO's untreated risk rating of intermediate to be reasonable. EMCa considered that ATCO did not provide any information to demonstrate that replacing [redacted] risers and services per year satisfied the as low as reasonably practicable (ALARP) test. However, EMCa considered that ATCO was required to eliminate leaks when detected, and that it was prudent to undertake leak surveys, at least in built-up areas where the risk was highest, and that it was likely that leak surveys would reveal more leaks.

863. EMCa considered that ATCO selected the appropriate option and that the basis for its cost estimates was reasonable.

864. ATCO requires leaks to be eliminated when detected and prudently undertakes leak surveys to detect them. The ERA was satisfied that the $17.7 million of expenditure for risers and services met the criteria to be conforming capital expenditure and should be included in the projected capital base.

865. ATCO proposed to spend $6.1 million on end-of-life replacement of seven different regulators and meter facility types. EMCa considered that ATCO's justification for the programs of work were in line with good asset management practice and that its expenditure forecasting was reasonable.

866. However, EMCa noted that, despite ATCO's expenditure forecasting approach resulting in no replacement of pressure regulating stations in AA5, ATCO brought forward replacement of pressure regulating stations from the AA6 period to AA5 at a cost of $2.5 million. EMCa did not consider that ATCO had provided sufficient information to support the need to replace the nominated pressure regulating stations in AA5.

867. The ERA reviewed the information provided by ATCO and was not satisfied that the $2.5 million for the brought-forward replacement of the pressure regulating stations had been adequately justified. Therefore, it did not meet the criteria of rule 79 of the NGR for conforming capital expenditure. The ERA was satisfied that the remaining $3.6 million met the criteria to be regarded as conforming capital expenditure and to be included in the projected capital base.

868. ATCO proposed to spend $4.5 million over the AA5 period to replace mechanical compression fittings prone to leaking when they were identified during operational activities (that is, opportunistic replacement). The $4.5 million was based on historical costs and volumes.

869. EMCa noted that ATCO assessed the residual risk after it undertook the work to be intermediate and as low as reasonably practicable, although ATCO did not provide any analysis to demonstrate this.

870. ATCO considered two other options: to wrap and leave the identified fitting when found, or take no action. ATCO's analysis was that the wrap and leave option would be more expensive over time than the preferred option of replacement due to double-handling. Under the no action option, ATCO assessed the risk as intermediate and not as low as reasonably practicable.

871. EMCa noted that although ATCO's documentation did not include quantified analysis to support this work, based on its engineering judgement, EMCa considered it likely that the opportunistic replacement program was prudent.

872. Although there was a lack of quantified analysis to support the work to replace the mechanical compression fittings, ATCO undertook an options analysis and regarded the preferred option as the only one that was as low as reasonably practicable.

873. Further, EMCa considered that the program was likely to be prudent, based on its engineering judgment. As a result, the ERA was satisfied that the $4.5 million proposed by ATCO for mechanical compression fitting replacement was conforming capital expenditure to be included in the projected capital base.

874. ATCO proposed to spend $3.6 million on a staged replacement of [redacted] telemetry units. Telemetry equipment provides accurate data for customer billing and generates data on flow and pressure that informs distribution network operation, modelling and planning.

875. ATCO's primary driver for the project was improving the integrity of the telemetry in the network by replacing end-of-life devices with new, modern devices. Prior to 2012, ATCO followed a run to failure replacement strategy until a proactive approach was introduced to replace telemetry assets to reduce operational costs.

876. EMCa noted in its review that ATCO provided enough information to demonstrate that the revised asset strategy was effective. EMCa considered that the proactive approach was the most preferable of the options considered.

877. The ERA reviewed the proposed telemetry expenditure proposed by ATCO including the proposed alternatives for the AA5 period. The ERA was satisfied that the replacement approach proposed was the most appropriate option. The ERA was satisfied that the proposed $3.6 million expenditure for telemetry replacement was conforming capital expenditure to be included in the projected capital base.

878. ATCO proposed, as part of its end-of-life replacement program, $1.7 million in expenditure for three smaller projects. EMCa reviewed the project briefs and associated business cases provided and considered that the proposed expenditure was likely to satisfy the capital expenditure criteria.

879. The ERA reviewed the documentation provided by ATCO on the three projects:

- $0.8 million for replacement of exposed steel pipe on bridge crossings susceptible to corrosion and leakage over time.
- $0.6 million for cathodic protection assets installed to protect steel pipes from material fatigue and corrosion, which can lead to leaks or pipe blockages.
- $0.3 million for high pressure warning signs used as a control to reduce the likelihood of a third-party damage on ATCO's high-pressure assets.

880. The ERA was satisfied that the proposed expenditure in AA5 for the three projects set out above met the criteria to be conforming capital expenditure and should be included in the projected capital base.

***Security of Supply***

881. ATCO proposed three AA5 security of supply projects in Caversham, Two Rocks and Bunbury totalling $49.0 million. ATCO identified the driver as the risk to security of gas supply from third-party damage. Security of supply projects focus on maintaining the natural gas supply to customers following an adverse event.

882. ATCO sought to justify the expenditure under rule 79(2)(c)(ii) of the NGR, that the capital expenditure was necessary to maintain the integrity of services and avoid a major gas outage.

883. ATCO calculated the frequency of loss of gas supply to end customers from specific gas distribution system pipeline segments per year and assessed the consequence in terms of customer weeks lost (that is, before gas supply was restored).

884. To assess these projects the ERA considered ATCO's risk assessment for the loss of gas supply frequency and the customer weeks lost consequence.

885. ATCO documented its method for estimating the frequency of a third-party incident causing pipeline puncture (leading to a loss of containment) in its report HP Steel Pipeline Semi-Qualitative Risk Assessment.

886. ATCO identified and applied four risk reduction factors to the baseline failure (puncture) rate to provide a more realistic prediction of failure probability for each pipeline segment. This assumed that a loss of containment via a puncture would result in a total supply outage, as ATCO stated that it assumed positive pressure would not be maintained for part of the network downstream in the event of a loss of containment.

887. EMCa noted that this was a conservative approach, as based on its experience the likelihood of shutting off the downstream system would vary with the location and size of the puncture, and other operational and repair methods would determine whether a complete shutdown was required. Also, EMCa noted that if a network must be shut down, positive network pressure could be maintained via other methods.

888. EMCa considered that ATCO should include a fifth risk reduction factor to account for the likelihood that no isolation was required, as EMCa was not aware of an instance where network isolation following a puncture was required anywhere in Australia.

889. ATCO documented its method for estimating customer weeks lost in its report, Supply Interruption Customer Weeks Lost Assessment (TCO RP 0287). To minimise the risk of air ingress into the network, ATCO assumed that "each impacted gas consumer downstream of the break will require isolation. In addition, the network will

have to be isolated into manageable sections to allow effective gas purging during recommissioning".[364]

890. ATCO determined the number of personnel and equipment available for reconnection activities after an event. EMCa noted that ATCO appeared to be very conservative with its estimates of the resources that could and would be brought to bear in an emergency. EMCa considered that vehicles, equipment and qualified personnel were unlikely to be a constraint for the customer isolation and reconnection work and the limiting factor was likely to be specialist gas equipment.

891. ATCO's modelling for its estimation of customer weeks lost resulted in a scenario with more than 100,000 customer weeks being lost when 30,000 customers were involved in the isolation, repair, reconnection sequence, for a loss of supply event, with the number of customer weeks lost increasing exponentially with increasing customers lost.

892. Under AS4645.1:2008, an interruption resulting in the loss of supply of greater than 100,000 customer weeks is determined to have a consequence severity rating of catastrophic when rating the risk.

893. EMCa reviewed ATCO's customer reconnection activity assumptions and made several different assumptions about timings for the isolation, repair and reconnection of customers and considered the number of customer weeks lost was unlikely to be greater than 100,000 unless supply to more than 50,000 to 60,000 customers was lost.

***Caversham Project***

894. ATCO determined that third-party damage to several network pipeline segments presented a high risk and proposed $15.0 million in capital expenditure to install bypasses on two pressure relief stations and link the Parmelia Gas Pipeline to a third pressure relief station.

895. ATCO used scenario analysis and determined that the frequency of such a loss of supply was remote and the number of customer weeks lost was a catastrophic consequence with:

- 237,049 customer weeks lost when 50,121 customers were affected under one loss of supply scenario.
- 137,462 customer weeks lost when 37,197 customers were affected under another loss of supply scenario.

896. ATCO considered two network and two non-network options. The network options included taking no action, which was not feasible due to the risk rating of high. The second network option was looping high risk segments and installing isolation values. This was a more expensive option than ATCO's proposed option.

897. The two non-network options included concrete slabbing and increased pipeline patrol frequency. ATCO submitted that neither option was sufficient to reduce the risk to an acceptable level.

898. EMCa noted that it considered increasing the surveillance would reduce the frequency rating down to hypothetical (less than 1:10,000), and the customer weeks lost was likely to be less than 100,000 in either of ATCO's scenarios leading to a

[364] ATCO, Supply Interruption Customer Weeks Lost Assessment, p. 5.

consequence level of major. EMCa found that the scenarios would have an overall risk level of intermediate, under which an ALARP test would be required.

899. The ERA considered that ATCO was overly conservative with its assessment of the risks for the Caversham project. The ERA was not satisfied with ATCO's risk ratings and considered that ATCO should undertake an ALARP test in order to see if the proposed level of expenditure is required.

900. The ERA was not satisfied that the proposed expenditure of $15.0 million for the Caversham security of supply project was justified and considered it did not meet the criteria of rule 79 of the NGR for inclusion in the projected capital base.

***Two Rocks Project***

901. ATCO determined that third-party damage to three segments of pipeline in the Two Rocks area presented a high risk by 2024. The current risk was rated as intermediate. ATCO proposed capital expenditure of $26.5 million to install a new Gate Station on the DBNGP and [redacted]km of new pipeline looping.

902. ATCO used scenario analysis and determined that the frequency of such a loss of supply was remote and the number of customer weeks lost was catastrophic with 298,362 customer weeks lost with 56,737 customers affected under one loss of supply scenario, and 166,224 customer weeks lost with 41,306 customers affected under another loss of supply scenario.

903. The risk is currently rated as intermediate because ATCO installed remotely-controlled isolation valves which reduced the number of customers exposed to loss of supply to 19,000. The increase in affected customers is due to forecast growth in customer numbers.

904. ATCO evaluated five other network options: [redacted] and no action.

905. [redacted] The no action option was not feasible because of the high-risk rating assessment.

906. ATCO assessed two non-network options: concrete slabbing and increase pipeline patrol frequency. As with the Caversham project, ATCO submitted that neither option was sufficient to reduce the risk levels to an acceptable level.

907. EMCa noted that, as with the Caversham project, its assessment of the Two Rock project was that the frequency was hypothetical, the consequence was major and the overall risk rating was intermediate and so should also be subject to an ALARP test. EMCa further noted that it considered that the ALARP test was unlikely to be satisfied for this project.

908. As with the Caversham project, the ERA considered that ATCO had been overly conservative with its assessment of the risks for the Two Rocks project. The ERA was not satisfied with ATCO's risk ratings and considered that ATCO should undertake an ALARP test in order to see whether the proposed level of expenditure was required.

909. The ERA was not satisfied that the proposed expenditure of $26.5 million for the Two Rocks security of supply project was justified and considered that it did not meet the criteria of rule 79 of the NGR for inclusion in the projected capital base.

***Bunbury Project***

910. ATCO determined that third-party damage to a [redacted]km segment of the pipeline in the Bunbury area presented a high risk and proposed $7.6 million of capital expenditure to install partial looping.

911. ATCO used scenario analysis and determined that the frequency of such a loss of supply was remote and the number of customer weeks lost as catastrophic with 137,083 customer weeks lost with 37,140 customers affected under a loss of supply scenario.

912. ATCO evaluated three other network options: Kemerton connection; LNG virtual pipeline; and no action. The Kemerton and LNG options were significantly more expensive than ATCO's preferred option and the no action option was not feasible due to the risk rating of high.

913. ATCO also considered two non-network options: concrete slabbing and increased pipeline patrol frequency. As with the Caversham and Two Rocks projects, ATCO submitted that neither option was sufficient to reduce the risk levels to an acceptable level.

914. As with the two other security of supply projects evaluated above, EMCa considered that the frequency for the Bunbury project was hypothetical, the consequence was major and the overall risk rating to be intermediate, and so should be subject to an ALARP test. EMCa further noted that it considered that the ALARP test was unlikely to be satisfied for this project.

915. As with the two projects evaluated above, the ERA considered that ATCO was overly conservative with its assessment of the risks for the Bunbury project. The ERA was not satisfied with ATCO's risk ratings and considered that ATCO should undertake an ALARP test in order to see if the proposed level of expenditure is required.

916. The ERA was not satisfied that the proposed expenditure of $7.6 million for the Bunbury security of supply project was justified and considered that it did not meet the criteria of rule 79 of the NGR for inclusion in the projected capital base.

917. EMCa noted in its report that there were hundreds of supply pipelines in Australia that had been through AS 2885 Safety Management Studies that concluded that similar supply threats to those described by ATCO had a hypothetical or remote likelihood and a major (not catastrophic) consequence, giving a low or intermediate risk. The intermediate risk scenarios were then considered ALARP as the cost to loop or otherwise backup supply was disproportionate to lowering the risk further.

918. EMCa noted that, based on its experience, ATCO would be out of step with Australian industry practice if it was to proceed with the proposed security of supply projects, and the cost of doing so would place an unwarranted premium on its prices.

***SCADA projects***

919. ATCO proposed to spend $12.6 million on Supervisory Control and Enhanced Data Acquisition (SCADA) projects. This was made up of SCADA systems and infrastructure, enhanced data acquisition and automated meter reading.

920. ATCO sought to justify the expenditure for these projects under three different areas of the NGR as set out below:

- SCADA systems and infrastructure ([redacted] million which includes [redacted] million relating to IT expenditure) – involves introducing remote network isolation which increases the effectiveness of emergency isolation to increase public safety and reduce loss of supply events and therefore met rule 79(2)(c)(i) of the NGR.
- Enhanced data acquisition ([redacted] million) – will ensure that network pressures and the integrity of assets are maintained and therefore meets rule 79(2)(c)(ii) of the NGR. ATCO stated that the project was also necessary to comply with a regulatory obligation or requirement and as a result met rule 79 (2)(c)(iii) of the NGR.
- Automated meter reading ([redacted] million) – will enable remote meter locking for identified customers to meet retailers' isolation expectations and safety for personnel attending a site. ATCO considered that this project met rule 79(2)(c)(i) of the NGR to improve the safety of services and as the project enabled ATCO to meet its compliance obligations against the AEMO market procedures it therefore met rule 79(2)(c)(iii) of the NGR.

921. ATCO noted that the investment drivers were to reduce emergency management risk and improve the operation of the gas network. The ability to remotely control equipment and resolve issues would enable ATCO to make better use of its assets and extend asset life.

922. In addition, ATCO stated that by increasing remote monitoring of assets and improving its data capture, its staff could be deployed more efficiently during emergencies and ATCO would be able to optimise investments in capacity upgrades or asset replacement due to the greater visibility of asset condition.

923. EMCa noted that for the emergency risk management driver for the SCADA systems and infrastructure, ATCO proposed expenditure to improve the response time for an event with a remote frequency of occurrence (1:1,000 years to 1:100,000 years) or hypothetical frequency (1:1,000,000 million years or lower), depending on the location of the pipeline.

924. As discussed in the security of supply section above, EMCa did not consider that ATCO's assessment of high risk from a pipeline loss of containment event was adequately substantiated and considered the overall risk to be intermediate at most and therefore subject to an ALARP test.

925. ATCO noted the Net Present Value (NPV) for this project was $0.9 million, however, EMCa's analysis of the NPV model revealed some concerns including that the assumed benefits in the NPV analysis appeared greater than described in the business case. ATCO did not provide the basis for the capital expenditure values, and the present value break-even period for the project was 35 years, well in excess of the 10-year economic asset life of SCADA and other infrastructure.

926. ATCO considered two alternatives to its preferred option. The first was developing its current data acquisition infrastructure to enhance remote control capability but this had a higher capital cost and lower NPV than the preferred option. The second alternative was to continue with current monitoring with remote isolation which would only incur [redacted] million in capital expenditure but had a negative NPV.

927. The ERA reviewed ATCO's proposal and the advice from EMCa on the risk profile of the project. The ERA was not satisfied that the assessed risk by ATCO of high was justifiable along with the NPV analysis, which did not provide sufficient justification for the proposed expenditure.

928. The ERA was not satisfied that the proposed SCADA and systems infrastructure expenditure of [redacted] million, which included [redacted] million of IT expenditure for a network digitisation and intelligence program, met the criteria of rule 79 of the NGR to be treated as conforming capital expenditure.

929. ATCO stated that the enhanced data acquisition expenditure would ensure compliance with the Gas Standards Regulations and AS4645.1:2008 and ensure critical high-pressure pipeline corrosion mitigation controls were functional to reduce the risk of asset deterioration to as low as reasonably practicable. ATCO submitted that a tangible benefit would also be a reduction in UAFG from 2025 onwards.

930. The expenditure for the enhanced data acquisition was linked to the SCADA infrastructure ATCO proposed installing in 2020 as reviewed above. ATCO assessed the current and residual risk for the options presented to be intermediate.

931. EMCa considered there was inadequate justification for the risk to be rated intermediate and considered a rating of low was more reasonable, in which case all options presented by ATCO would have a low or negligible rating. EMCa also considered that there were likely to be more cost-effective approaches to acquiring data to provide the benefits outlined by ATCO.

932. The ERA considered that ATCO was overly conservative with its risk profile and assessed the risk at an intermediate level. The ERA also noted that this work was linked to the expenditure for SCADA systems and infrastructure.

933. As the ERA did not accept the SCADA systems and infrastructure expenditure proposed by ATCO in AA5, the enhanced data acquisition project which relied on the SCADA systems and infrastructure project being undertaken to work, was not viable and was considered by the ERA to not be conforming capital expenditure under rule 79 of the NGR.

934. ATCO proposed to spend [redacted] million over the AA5 period to install automated meter reading device enabled meters (mainly domestic), different meter types (with in-built remote communication) or data acquisition (telemetry and communications) on existing meter sets, over a 10-year trial period.

935. ATCO assessed the risk for the project as negligible and estimated a positive NPV for the project of $0.1 million, which appeared to include the tangible benefit of reduced operating expenditure beginning in 2025.

936. ATCO noted that the principal driver for this expenditure was that customers' preference for natural gas was being eroded over time by limited metering options, restricting developers' installation options and customers' ability to manage their future energy mix.

937. EMCa noted that it was not clear what new information would be gained from the trial that could not be gleaned from other trials and studies undertaken from around the world.

938. The ERA reviewed ATCO's proposed expenditure and was not satisfied that the detail provided in the business case was enough to support the project expenditure. The ERA did not consider, based on the information available at the time of making its draft decision, that this project met the criteria of rule 79 of the NGR for inclusion in the projected capital base.

***Parmelia Gas Pipeline interconnection projects***

939. ATCO proposed to spend $13.5 million to interconnect with the Parmelia Gas Pipeline (PGP) at two locations, being Forrestfield and Rockingham, to reduce what ATCO assessed to be an intermediate risk of the loss of supply from the DBNGP.

940. ATCO sought to justify the expenditure under rule 79(2)(c)(ii) of the NGR in that the capital expenditure was necessary to maintain the integrity of services. ATCO proposed to spend [redacted] million on the Forrestfield interconnection and [redacted] million on the Rockingham interconnection.

941. ATCO's intermediate risk rating for the Forrestfield interconnection was based on a frequency of hypothetical and a consequence of catastrophic due to the predicted loss of supply to 220,000 customers, resulting in 4 million customer weeks lost. This was based on ATCO's assumption of it taking 257 days to restore all customers.

942. EMCa reviewed ATCO's documentation and considered that ATCO's assessment of 4 million customer weeks lost was overstated. However, EMCa did accept that if ATCO's analysis that 220,000 customers did lose supply from the hypothetical event, it was likely that the customer weeks lost would be greater than 100,000 and therefore catastrophic. As a result, EMCa considered ATCO's overall risk rating of intermediate as reasonable.

943. ATCO considered two other network options in its business case: no action and for ATCO to build, own and maintain the gate station with APA Group operating it. The second option was more expensive than ATCO's preferred option which was based on APA maintaining and operating the gate station. ATCO did not consider the no action option as acceptable as it did not address the risk of losing up to 220,000 customers as a result of a DBNGP failure for Forrestfield and 92,000 customers for Rockingham.

944. EMCa, however, did not consider that ATCO properly applied the ALARP test to demonstrate that the proposed expenditure satisfied, for either project, the capital expenditure criteria.

945. ATCO did plan to undertake five interconnections with the PGP during AA4, but will complete only one, having deferred two into the AA5 period (Forrestfield and Rockingham) and the remaining two interconnections beyond 2024.

946. The ERA reviewed the proposed PGP interconnection expenditure for Forrestfield and Rockingham and was not satisfied that the expenditure was prudent and efficient based on the information provided. The ERA was not satisfied that ATCO had property applied the ALARP test to justify the expenditure.

947. As a result, the ERA did not consider that any of the $13.5 million of proposed expenditure for PGP interconnections met the criteria of rule 79 of the NGR to be included in the projected capital base.

***Other network sustaining capital expenditure projects and programs***

948. ATCO proposed to spend $9.2 million on inline inspection work in the AA5 period. ATCO identified seven pipelines to undergo internal inspection to detect steel defects, six of which would require modifications to enable the internal inspection. The modification was necessary to enable the pipeline inspection gauge to be safely introduced and removed from the pipeline without obstruction.

949. ATCO submitted the expenditure satisfied rule 79(2)(c)(i) of the NGR, with the capital expenditure to maintain the safety of services by improving ATCO's ability to detect potential pipeline leakage locations, especially the locations that were currently inaccessible to direct current voltage gradient (DCVG) surveys.

950. ATCO also noted that the expenditure met rule 79(2)(c)(ii) of the NGR because inline inspection provided the ability to detect an entire suite of pipeline anomalies to effectively maintain the integrity of services. ATCO submitted that the scope of the project ensured it could demonstrate compliance with AS2885 and therefore met rule 79(2)(c)(iii) of the NGR as well.

951. ATCO has an obligation under AS2885 to demonstrate high-pressure pipeline structural integrity. EMCa noted an alternative to inline inspection was excavation and direct inspection at locations where DCVG surveys indicated defects. However, EMCa noted that relying on DCVG surveys alone was not good industry practice.

952. EMCa also noted that inline inspection was consistent with good industry practice and that the nominated pipelines were due for inspection. In addition, the cost estimate was based on similar work undertaken in the AA4 period.

953. ATCO's proposed expenditure was intended to maintain both the safety and integrity of services and to comply with its obligation under AS2885. ATCO's chosen method to undertake the work by using inline inspection was regarded as good industry practice and the cost build up was based on the most recent cost for this type of work undertaken in the AA4 period.

954. The ERA considered this expenditure to be consistent with that which would be incurred by a prudent service provider acting efficiently, in accordance with good industry practice at the lowest sustainable cost and approved the proposed expenditure as conforming under rule 79 of the NGR.

**Table 106: ERA's amended conforming network sustaining capital expenditure (AA5) ($ million real as at 31 December 2019)**

| Capital expenditure – Network sustaining | 2020 | 2021 | 2022 | 2023 | 2024 | Total |
|---|---|---|---|---|---|---|
| ATCO proposed conforming capital expenditure | 56.9 | 53.3 | 55.8 | 57.6 | 52.5 | 276.1 |
| PVC mains replacement | -2.6 | -3.0 | -3.3 | -3.5 | -3.9 | -16.3 |
| Meter replacement program | -0.2 | -0.2 | -0.3 | -0.3 | -0.4 | -1.3 |
| End-of-life replacement program | -0.1 | -0.2 | -2.7 | -0.2 | -0.2 | -3.4 |
| Security of supply projects | -15.0 | -3.8 | -3.8 | -15.1 | -11.3 | -49.0 |
| SCADA projects | -2.5 | -2.5 | -2.5 | -2.5 | -2.6 | -12.6 |
| PGP interconnection projects | -1.3 | -7.4 | -4.8 | 0.0 | 0.0 | -13.5 |
| Other network sustaining projects | -0.1 | -0.1 | -0.1 | -0.1 | 0.0 | -0.4 |
| **ERA amended conforming capital expenditure** | **35.1** | **36.2** | **38.4** | **35.8** | **34.1** | **179.6** |

*Source: ERA, Draft Decision Appendix 4, GDS Tariff Model, April 2019. Some numbers may not add due to rounding.*

### *Growth capital expenditure*

955. ATCO forecast growth capital expenditure for AA5 of $174.3 million. ATCO's growth capital expenditure was driven by the number of new customers it expected to connect to the network in AA5. Based on its demand forecast, ATCO expected to connect 81,000 new domestic customers and 2,300 commercial customers during the AA5 period.

956. ATCO stated that its growth capital expenditure satisfied rule 79(2)(b) of the NGR, in that the present value of the expected incremental revenue to be generated as a result of the expenditure exceeded the present value of the expenditure.

957. To justify the proposed expenditure, ATCO provided Net Present Value (NPV) models for both greenfield and brownfield connections of B2 and B3 customers. The greenfield model included a total capital cost of $144.5 million in which ATCO calculated an NPV of $18.7 million using a 50-year period, with a payback period of 37 years.

958. For AA5 brownfields proposed capital expenditure, ATCO determined a total capital cost of $11.5 million with an NPV of $0.9 million using a 50-year period, with a payback period of 24 years.

959. ATCO provided no information as to why it chose an analysis period of 50 years to assess the NPVs of the greenfield and brownfield growth expenditure. A 50-year NPV period is a very long period to forecast with any certainty.

960. The ERA maintained ATCO's 50-year period when assessing ATCO's NPV models but asked ATCO in its response to the draft decision to provide further explanation as to why such a long period had been chosen to assess the proposed AA5 greenfield and brownfield growth expenditure.

961. The ERA reviewed ATCO's NPV models for greenfield and brownfield growth expenditure in AA5 and considered that the following amendments were necessary to the NPV models:

- The tariff used in the model should be an extrapolated cost reflective calculation of the prevailing tariff in 2019.
- The discount rate - Weighted Average Cost of Capital (WACC) parameters - should be that used in the tariff variation for 2019.
- The labour cost escalation should be applied to the labour portion of operating and capital costs over the 50-year analysis period.
- The B2 and B3 usage volumes should incorporate the downward trend in gas usage by customers.

962. Each of these amendments is explained below.

***Tariff***

963. ATCO used the AA5 proposed tariff values in its NPV models. However, under rule 79(4)(a) of the NGR, a tariff will be assumed for incremental services based on (or extrapolated from) prevailing reference tariffs or an estimate of the reference tariffs that would have been set for comparable services if those services had been reference services.

964. ATCO's proposed tariff values were not consistent with the NGR. The prevailing tariffs would usually be the most appropriate value to use in the model. However, due to the timing of AA4 resulting in a delay and the requirement to implement a smooth tariff path, the current prevailing tariff (2019) for ATCO under-recovers the cost of service for 2019.

965. Rule 79(4)(a) of the NGR allows for an extrapolation from the prevailing reference tariff to be used. The ERA considers that, under the circumstances noted above, as the prevailing tariff is not close to, or representative of, the cost of service, an extrapolated value should be used to ensure that a fair and accurate evaluation of capital expenditure can occur under rule 79 of the NGR.

966. The ERA calculated, for each customer class, an extrapolated prevailing tariff value that results in tariff revenue in 2019 equalling the cost of service in 2019, using the 2019 tariff variation parameters. The ERA used these extrapolated prevailing tariffs to calculate the NPV of growth capital expenditure.

967. The difference between the prevailing tariff and the extrapolated cost-recovery prevailing tariff is set out in Table 107 below:

**Table 107: Comparison of 2019 prevailing tariff and the ERA's extrapolated cost-recovery prevailing tariff ($ million real as at 31 December 2019)**

| | 2019 prevailing tariff | 2019 cost-recovery tariff |
|---|---|---|
| **B2 tariffs** | | |
| Fixed charge | 226.74 | 297.43 |
| Usage <= 100 GJ | 5.77 | 7.57 |
| Usage > 100 GJ | 3.44 | 4.51 |
| **B3 tariffs** | | |
| Fixed charge | 116.84 | 116.92 |
| First 1.825 GJ | 0.00 | 0.00 |
| Usage >1.825 <= 9.855 GJ | 4.89 | 9.96 |
| Usage > 9.855 GJ | 2.11 | 4.30 |

### *Discount rate*

968. Under rule 79(4)(c) of the NGR, a discount rate is to be used equal to the rate of return implicit in the reference tariff when determining the present value of expected incremental revenue.

969. As the ERA amended the tariffs used in the NPV models to a 2019 cost-reflective tariff, the ERA also amended the WACC parameters, including the discount rate, to be the values used in the 2019 tariff variation process in order to be consistent and comply with the NGR.

### *Labour cost escalation*

970. While both of ATCO's NPV models include escalation of operating and capital expenditure for inflation, neither includes any escalation for the increase in the cost of labour above inflation (real cost of labour) in future years.

971. The ERA considered that a robust NPV model would include the best forecast of revenue and expenditure and would include an allowance for costs to increase above the rate of inflation where appropriate. This is required by rule 74 of the NGR.

972. Based on historical evidence and current short-term forecasts, growth in the cost of labour has generally exceeded the rate of inflation. In past access arrangement periods, ATCO has proposed, and the ERA has included, an escalation factor for the real cost of labour.

973. ATCO proposed that growth in the cost of labour will again be above the rate of inflation during AA5 and included a 1.64 per cent per year escalation to the labour portion of its operating and capital expenditure forecasts. The ERA calculated and considered that in the AA5 period, ATCO's labour costs will be required to be escalated above the rate of inflation for ATCO to recover its expenditure based on historical trends and forecasts over the AA5 period.

974. Based on historical and short-term forecasts, it is reasonable to expect that in the years beyond the AA5 period, the cost of labour will continue to increase above the forecast rate of inflation.

975. ATCO included an average growth rate of 1.25 per cent in its forecast capital expenditure model for labour escalation for the AA6 period (2025 to 2029). Although it did not use this rate to escalate any of its forecast expenditure during the AA5 period (using a rate of 1.64 per cent during AA5), it showed that ATCO predicted that growth in the cost of labour would continue to exceed the rate of inflation in the years after AA5.

976. Since the Australian Bureau of Statistics first published a WPI series in 1998, growth in that Index for Western Australia has averaged around 1 per cent more than growth in the Consumer Price Index. The Commonwealth Treasury's Intergenerational Report in 2015, which forecast out 40 years, expected wages to increase by 1.5 per cent above inflation over the long term.

977. The ERA considered that a labour escalator of 1.25 per cent was a reasonable forecast to evaluate the greenfield and brownfield growth connection NPV models. The ERA applied this labour escalator to the labour portion of both operating and capital expenditure in each of the models.

978. For operating costs, the labour escalation has been applied to 62 per cent of the operating costs, which was the proportion that ATCO used in its AA5 proposed operating costs model.

979. For capital expenditure, as the expenditure relates to meters and service pipes, the ERA calculated the labour component of ATCO's AA5 proposal for the asset category of meters and service pipes. The labour portion of meters and service pipes in ATCO's proposal is 78.8 per cent. Labour escalation has been applied to capital expenditure using the 78.8 per cent split in the revised models.

***Gas consumption***

980. The ERA reviewed ATCO's assumptions on the volumes of gas used per customer per year for B2 and B3 customers in its NPV models. ATCO assumed that volumes for both customer classes would remain steady over the 50-year period with only minimal reductions in both.

981. For B2 customers at the end of AA5, ATCO assumed usage of 89.7 GJ, which decreased to 88.5 GJ over the AA6 period. Over the following 40 years, ATCO assumed that B2 customers would decrease down to 88.2 GJ, a reduction of 0.3 GJ over the 40-year period.

982. For B3 customers, ATCO assumed that once a customer reached their peak usage (generally in the third year after joining the network), a customer would either remain at that peak or reduce slightly by up to 0.03 GJ and then stay at that usage level to the end of the analysis period of 50 years.

983. Based on the (then) current trend in customer demand for gas, the ERA did not agree with ATCO's assumption that customer volume usage would remain constant for the 50-year NPV analysis period.

984. For B2 customers, the ERA included a reduction to the volumes per customer per year of 0.5 per cent, compared to the weighted average reduction rate of 1.4 per cent for volume per connection between 2010 and 2017. The ERA considered that this

was a conservative estimate of the reduction in volume per customer given the recent trend. The 0.5 per cent reduction starts in year 2027 to allow for customers connected in 2024 to reach their peak volume usage before applying the reduction.

985. For B3 customers, the ERA factored the same 0.5 per cent reduction in to the NPV models, starting in 2025 for customers who connect in 2020 to 2022 and a 0.5 per cent reduction beginning in 2026 for customers connecting in 2023, and 2027 for customers connecting in 2024. This allows customers to reach their peak usage before applying the volume reduction. The assumed reduction rate of 0.5 per cent is relatively moderate, compared to the average reduction of 5.5 per cent per year for new customer mature consumption between 2010 and 2017.

986. In its models, ATCO assumed a consumption floor amount for B3 customers of 8 GJ a year. For the purpose of the draft decision, the ERA kept this consumption floor amount in place. The average B3 consumption for customers connecting in the AA5 period reaches the floor consumption of 8 GJ by 2053.

***Summary***

987. Applying the amendments set out above to the greenfield and brownfield NPV models resulted in the greenfield model having a negative NPV of $14.2 million over the 50-year period. Applying the amendments to the brownfield model resulted in a negative NPV of $1.7 million over the 50-year period.

988. The reason why these NPVs were negative was in part due to ATCO's proposed changes to key assumptions and the ERA's corrections to the models to ensure compliance with the NGR. ATCO's NPV modelling assumptions for growth capital expenditure for the AA4 period resulted in a positive NPV. ATCO's assumptions in its AA5 growth capital expenditure NPV models were significantly different from those used in its AA4 growth capital expenditure NPV model. The corrections resulted in different assumptions about consumption per customer, connection costs and incremental operating expenditure. The following is a summary of the key differences:

- ATCO assumed a considerably lower consumption per B3 connection than it applied to its AA4 growth NPV model. ATCO submitted this reflects the declining trend in consumption per B3 connection since AA4. The lower consumption results in lower tariff revenue for these customers, reducing the revenue and therefore reducing the NPV.
- ATCO used higher connection costs in its AA5 NPV model compared to its AA4 NPV model. For example, ATCO assumed a weighted average of [redacted] per B3 connection for meters and services, compared with [redacted] in its AA4 model. Higher connection costs increase the incremental cost and reduce the NPV.
- ATCO applied higher incremental operating cost assumptions in its AA5 NPV model compared to its AA4 model. For example, ATCO assumed an incremental operating cost of [redacted] per customer per year for the AA5 period, compared with [redacted] per customer per year during AA4. This reflects a change to the method used to calculate the incremental operating expenditure. ATCO provided its workings for the AA5 method which were robust.

989. The ERA carefully analysed the information provided by ATCO and determined that it was not able to approve the proposed levels of forecast growth capital expenditure for inclusion in the AA5 total revenue and tariffs. The ERA considered that the information it had been provided did not demonstrate that the requirements of the NGR and the national gas objective had been met. The ERA expected ATCO in its

response to the draft decision to reconsider the level of growth capital that can be demonstrated to meet the NGR requirements and the national gas objective.

990. The ERA considered that a prudent service provider would not undertake non-conforming capital expenditure of this magnitude without users paying either a capital contribution or a surcharge to ensure that existing customers were no worse off.

991. There are other mechanisms under the NGR that ATCO could consider in its response to the draft decision, including rule 84 to seek an amount of non-conforming capital expenditure be added to the speculative capital expenditure account. Any amount in that account increases each year by the rate of return and is rolled back into the capital base if it can be later proved to be conforming capital expenditure.

992. Without the reasonable use of other mechanisms in the NGR described above to treat an amount of non-conforming capital expenditure, the ERA did not consider that it was in the long-term interests of consumers (the national gas objective) to approve a partial amount that may meet rule 79(2)(b) of the NGR. On the basis of the information before the ERA, the forecast did not comply with rule 74 of the NGR because it was not arrived at on a reasonable basis.

***Discounted weighted average tariff analysis***

993. The ERA undertook separate analysis using a discounted weighted average tariff approach to confirm the NPV results discussed above.

994. The ERA calculated the discounted weighted average tariff for:[365]

- existing customers
- existing customers with the addition of new greenfield customers
- existing customers with the addition of brownfields customers.

995. Table 108 shows the discounted weighted average tariff for each scenario.

**Table 108: AA5 analysis - Discounted weighted average tariff ($/GJ)**

| | Discounted weighted average tariff |
|---|---|
| Existing customers | 8.28 |
| Existing and greenfield customers | 8.67 |
| Existing and brownfield customers | 8.30 |

*Source: ERA calculations*

996. This analysis confirmed the NPV results presented above. As the discounted weighted average tariff is higher under the scenarios with greenfield or brownfield customers connected, the existing customers would pay more than if these customers were not connected.

[365] ERA, Confidential discounted weighted average tariff modelling, April 2019. Further information is provided in Appendix 6.

997. The intent of rule 79(2) of the NGR is that new customers must, at least, not cause existing customers to pay more unless there is also a regulatory or safety benefit for the capital expenditure.

998. Based on the information provided by ATCO and reasonable assumptions made by the ERA for a 50-year period, the ERA could not approve the greenfield or brownfield connection capital expenditure under the NGR as conforming capital expenditure. The main reasons were that the greenfield and brownfield capital and operating expenditure were higher per GJ than for existing customers. The consumption per customer for existing customers (around 13.5 GJ per customer) was higher than the consumption per new customer (around 9.5 GJ per customer), meaning that for a given level of expenditure, the expenditure per GJ for new customers was higher.

***Other growth capital expenditure***

999. ATCO proposed $1.7 million for six network reinforcement projects in the AA5 period. ATCO stated that analysis of forecast new connections, coupled with hydraulic modelling of the gas network, identified several expansion projects required to maintain capacity during AA5. These included capacity upgrades to regulating facilities and mains extensions that maintain gas supply.

1000. ATCO sought to justify this expenditure under rule 79(2)(b) of the NGR in that the economic evaluation showed that the present value of the expected incremental revenue to be generated as a result of the expenditure exceeded the present value of the expenditure.

1001. ATCO included the $1.7 million of network reinforcement expenditure in the greenfields and brownfields NPV calculation models. As set out above, these models as amended by the ERA resulted in a negative NPV and the growth-related expenditure was not deemed conforming capital expenditure.

1002. As a result of not approving any greenfield or brownfield growth expenditure, the ERA also determined that the network reinforcement project expenditure did not meet the criteria of rule 79(2)(b) of the NGR for inclusion in the projected capital base.

1003. ATCO proposed two growth-related meter projects being $10.7 million for customer initiated commercial (CIC) metersets and $0.7 million for AL18 meters in AA5.

1004. The CIC meterset connection project covers meter installations larger than AL18. ATCO forecast connection of [redacted] CIC metersets during AA5. ATCO's forecast showed a reducing number of connections over AA5, from 62 in 2020 down to 49 in 2024. ATCO forecast this downward connection trend to continue in AA6, with connections to be down to 44 in 2028.

1005. EMCa reviewed the information provided by ATCO and was satisfied that the expenditure was prudent.

1006. The AL18 meters are connections that are customer-initiated standard installations that form part of the variable volume activities. ATCO proposed connecting 22 new AL18 meters a year. ATCO forecast a consistent rate of AL18 connections despite noting in its asset lifecycle management document that the forecast for commercial connections was decreasing for light commercial connections (B2 tariff).[366]

[366] ATCO, Asset Lifecycle Strategy Metering Facilities, Attachment 12.5 0 ATCO 2020-2024 plan, 31 August 2018.

1007. EMCa reviewed the information provided by ATCO and was not satisfied that all of the proposed expenditure on AL18 meter installations was prudent.

1008. The ERA reviewed the supporting information provided by ATCO and the analysis from EMCa and was satisfied that the $10.7 million for CIC metersets expenditure complied with rule 79 of the NGR and could be considered conforming capital expenditure.

1009. The ERA was not satisfied that the total proposed expenditure for AL18 meter connections was the best forecast for the AA5 period as required by rule 74 of the NGR. With the ERA removing greenfield and brownfield growth expenditure and ATCO noting that light commercial connections were decreasing, maintaining a consistent connection rate of 22 meters a year for AA5 and AA6 did not appear to be the best forecast.

1010. In the draft decision, the ERA determined that AL18 meter connections should decrease over the AA5 period and that only half of the $0.7 million of the AL18 meter connection program was likely to satisfy the NGR criteria to be conforming capital expenditure.

1011. ATCO proposed $10.4 million in growth development expenditure in the AA5 period. This expenditure would be offset by capital contributions of $7.6 million.

1012. Growth development expenditure is for the cost to connect subdivisions far away from the existing gas network. ATCO forecast that a large capital contribution would be required to fund these assets to achieve a positive project NPV. Only the net capital expenditure would be added to the capital base.

1013. Growth development expenditure is in addition to the separate cost to connect a customer once the gas infrastructure has reached the developed land. The costs of connection of the customer were considered above and the ERA found that there was a negative NPV of undertaking that investment.

1014. This would mean that developers would have to fund the entire $10.4 million cost as well as contributing to the connection of each customer for the project to be NPV-positive. Alternatively, ATCO could fund the investment as non-conforming expenditure. The ERA considered, either way, there would be no conforming capital expenditure for growth development which complies with rule 79 of the NGR.

1015. Even if the developer or ATCO funded the entire cost, there would still be a shortfall for the connection costs of greenfields customers that would need to be funded by a further capital contribution.

1016. ATCO proposed two other growth-related projects in AA5. The first was for $1.3 million for meter upgrades to respond to customer-initiated requests. This was forecast based on historical volume and unit rates.

1017. The ERA was satisfied that the $1.3 million for meter upgrades complied with rule 79 of the NGR and could be considered conforming capital expenditure.

1018. The second project was $2.8 million over AA5 for sub-meter to master meter conversions, which were described as customer-initiated. EMCa requested ATCO to identify the documentation to support the proposed expenditure, but ATCO did not provide sufficient information for EMCa to form the view that the proposed expenditure was prudent and efficient.

1019. The ERA also found that insufficient information was available on the sub-meter to master meter conversion project to satisfy the criteria for inclusion as conforming capital expenditure. As a result, the ERA determined that the $2.8 million for sub-meter to master-meter conversion project did not meet the criteria in rule 79 of the NGR for inclusion in the projected capital base.

**Table 109: ERA's amended conforming network growth capital expenditure (AA5) ($ million real as at 31 December 2019)**

| Capital expenditure – Network growth | 2020 | 2021 | 2022 | 2023 | 2024 | Total |
|---|---|---|---|---|---|---|
| ATCO proposed conforming capital expenditure | 33.8 | 34.1 | 34.9 | 35.0 | 36.5 | 174.3 |
| Greenfield and brownfield connections | -28.5 | -29.8 | -30.9 | -32.0 | -33.3 | -154.3 |
| AL18 commercial meters | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.3 |
| Network reinforcement | -1.0 | -0.1 | -0.5 | 0.0 | -0.1 | -1.7 |
| Growth development | -3.1 | -3.2 | -2.7 | -2.1 | -2.1 | -13.2 |
| (Capital contributions) | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 7.5 |
| **ERA amended conforming capital expenditure** | **2.6** | **2.4** | **2.3** | **2.3** | **2.4** | **12.1** |

*Source: ERA, Draft Decision Appendix 4, GDS Tariff Model, April 2019.* Some numbers may not add due to rounding.

### *Structures and equipment capital expenditure*

1020. ATCO forecast structures and equipment capital expenditure for AA5 of $22.8 million, split between the following categories:

- $16.4 million for fleet
- $6.4 million for facilities, plant and equipment.

1021. ATCO stated the forecast structures and equipment capital expenditure for both fleet and facilities, plant and equipment, satisfied rule 79(2)(c)(ii) of the NGR to maintain and improve the safety of services and maintain the integrity of services.[367]

1022. ATCO's AA5 expenditure forecast is 43 per cent less than the last five years of AA4, primarily due to less depot-related work. The proposed fleet capital expenditure is dominated by age-based replacement at $14.8 million with the balance of $1.6 million being growth-driven.

1023. The facilities, plant and equipment forecast expenditure of $6.5 million is also largely age-based replacement expenditure.

1024. The ERA reviewed ATCO's proposed AA5 structures and equipment capital expenditure. As the ERA's draft decision determined above that most of ATCO's proposed growth-related expenditure did not satisfy the NGR as conforming capital

[367] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, pp. 114-115.

expenditure, the fleet expenditure from increased demand from growth of the network was also not conforming capital expenditure.

1025. The ERA considered that $1.6 million of the proposed fleet expenditure did not satisfy the requirements of rule 79 of the NGR to be considered conforming capital expenditure.

1026. The ERA was satisfied that the remaining $21.2 million of proposed structures and equipment capital expenditure met the requirements of rule 79 of the NGR and could be considered conforming capital expenditure.

**Table 110: ERA's amended conforming structures and equipment capital expenditure (AA5) ($ million real as at 31 December 2019)**

| Capital expenditure – Structures and equipment | 2020 | 2021 | 2022 | 2023 | 2024 | Total |
|---|---|---|---|---|---|---|
| ATCO proposed conforming capital expenditure | 5.3 | 6.0 | 3.2 | 4.1 | 4.3 | 22.8 |
| Fleet – Growth related | -0.6 | -0.3 | -0.2 | -0.4 | -0.1 | -1.6 |
| **ERA amended conforming capital expenditure** | **4.7** | **5.7** | **3.0** | **3.7** | **4.2** | **21.2** |

*Source: ERA, Draft Decision Appendix 4, GDS Tariff Model, April 2019.* Some numbers may not add due to rounding.

### *Information technology capital expenditure*

1027. ATCO proposed to spend $36.1 million on information technology (IT) capital expenditure in AA5:

- $2.9 million for energised and responsive customer engagement
- $1.3 million for network digitization and intelligence
- $2.0 million for asset management and service delivery excellence
- $4.9 million for enterprise and employee enablement
- $24.9 million for application renewal.

1028. ATCO stated that its forecast IT capital expenditure was justified under several sections of rule 79(2) of the NGR. ATCO provided a table in the access arrangement information that set out which section of rule 79(2) of the NGR each proposed IT program met. A copy of this table is shown at Figure 14.

**Figure 14 ATCO proposed information technology capital expenditure compliance with NGR 79**

| NGR 79 | ENERGISED & RESPONSIVE CUSTOMER ENGAGEMENT | NETWORK DIGITISATION & INTELLIGENCE | ASSET MGT & SERVICE DELIVERY EXCELLENCE | ENTERPRISE &EMPLOYEE ENABLEMENT | APPLICATION RENEWAL |
|---|---|---|---|---|---|
| (2)(a) Economic value. | Yes | **Yes** | Yes | Yes | N/A |
| (2)(b) Incremental revenue vs present value of capex. | N/A | N/A | N/A | N/A | N/A |
| (2)(c)(i) Safety of services. | Yes | Yes | Yes | **Yes** | Yes |
| (2)(c)(ii) Integrity of services. | Yes | Yes | **Yes** | Yes | Yes |
| (2)(c)(iii) Regulatory obligation. | Yes | N/A | Yes | Yes | Yes |
| (2)(c)(iv) Meeting demand. | **Yes** | N/A | Yes | Yes | **Yes** |

*Source: ATCO, Access Arrangement Information, 31 August 2018, Table 12.13, p. 112.*

1029. ATCO's proposed AA5 IT capital expenditure of $36.1 million was $5.9 million more than its actual and forecast expenditure for the five-and-a-half years of AA4.

1030. EMCa reviewed ATCO's proposal and noted that ATCO provided five business cases to support the five programs listed in the expenditure proposal. EMCa also noted that the business cases provided had not been through ATCO's designated capital expenditure governance process.

1031. EMCa noted that while ATCO's IT strategy provided the context for the upgrade work, the quality of the business case information would fall well short of that which would be required to justify the expenditure in most cases.

1032. EMCa found in one or more instances in the business cases that:

- Only one option other than the preferred approach was presented and it was a no action option.
- The claimed safety, reliability, productivity, and efficiency benefits were largely vague, unsubstantiated qualitative statements.
- Cost estimates were preliminary and engagement with vendors was only in the preliminary stages.

1033. EMCa reviewed ATCO's IT Asset Strategy document and noted that it provided sufficient information to support the case for at least considering each of the recommended projects and how they fit within ATCO's information technology and operational technology systems. However, being strategy documents, EMCa was of the opinion ATCO did not provide sufficient justification for individual programs of work.

1034. The ERA determined in the assessment of network sustaining capital expenditure section of its draft decision that a reduction was required to ATCO's proposed SCADA expenditure. As a result, the IT expenditure for network digitisation and intelligence, which was linked with the network sustaining SCADA expenditure, was not justified under rule 79 of the NGR and was required to be removed from ATCO's proposed AA5 IT expenditure.

1035. The ERA reviewed ATCO's proposed AA5 IT expenditure and noted EMCa's analysis that the business cases provided by ATCO appeared to have been prepared specifically for the AA5 process and had not been subject to the rigour and review that the ERA would expect a board to require before approving the projects.

1036. EMCa concluded from its review that, with the exception of the network digitisation and intelligence project, there was a reasonable case for the identified projects progressing in one form or another. However, as the cost and timing of the projects was far from certain, EMCa considered that a 20 per cent reduction to the balance of the proposed IT expenditure would better represent a level of expenditure that was likely to be prudent and efficient.

1037. EMCa considered this reduction was more representative of efficient expenditure on the basis of future progressive refinement of the business cases and cost estimates and that a rigorous portfolio level review of the corporate risk of trying to deliver so many projects in a five-year period, would lead to less expenditure being required in the AA5 period.

1038. Most of the AA5 IT expenditure in its proposed state did not meet the criteria under rule 79(1) of the NGR, as would not achieve the lowest sustainable cost of providing the services set out. The ERA also noted EMCa's opinion that, while the cost and timing were uncertain, there was a reasonable case for ATCO to undertake the work at some point in the AA5 period or beyond.

1039. While the ERA did have the option of removing all IT expenditure from ATCO's AA5 proposal due to the limited information and costings provided, the ERA considered that this would be an unrealistic outcome as ATCO would require some level of capital expenditure for IT in the AA5 period.

1040. In its draft decision, the ERA determined that an across-the-board reduction of 20 per cent would apply to the remaining proposed AA5 IT capital expenditure after excluding the network digitisation and intelligence project. The ERA considered this reduction reflected a better forecast of IT expenditure once ATCO further progressed its business cases and reviewed the IT portfolio expenditure programs.

1041. The ERA determined that $26.8 million of IT expenditure would be treated as conforming capital expenditure, but still required additional supporting information from ATCO to satisfy rule 79 of the NGR for the purpose of the final decision.

1042. The ERA required ATCO to provide additional information in its response to the draft decision to justify its proposed AA5 IT expenditure.

**Table 111: ERA's amended conforming information technology capital expenditure (AA5) ($ million real as at 31 December 2019)**

| Capital expenditure – Information technology | 2020 | 2021 | 2022 | 2023 | 2024 | Total |
|---|---|---|---|---|---|---|
| ATCO proposed conforming capital expenditure | 7.4 | 8.8 | 6.4 | 5.5 | 8.0 | 36.1 |
| Network digitisation and intelligence | -0.2 | -0.2 | -0.4 | -0.4 | -0.2 | -1.3 |
| Energised and responsive customer engagement | -0.3 | -0.2 | -0.1 | -0.1 | 0.0 | -0.7 |
| Asset management and service delivery excellence | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.5 |
| Enterprise and employee enablement | -0.3 | -0.3 | -0.3 | -0.2 | 0.0 | -1.1 |
| Application renewal | -0.9 | -1.3 | -0.9 | -0.8 | -1.8 | -5.7 |
| **ERA amended conforming capital expenditure** | **5.7** | **6.8** | **4.7** | **4.0** | **6.1** | **26.8** |

### *Equity raising cost*

1043. Equity raising costs reflect the direct transaction costs of raising equity. Equity is assumed to be raised to fund a capital investment program and is used to maintain the benchmark gearing assumption adopted.

1044. The ERA provides an allowance for equity raising costs in the capital expenditure building block. Equity raising costs are capitalised and incorporated into capital expenditure allowances, which are then recovered over time. Equity raising costs do not form part of the rate of return.

1045. ATCO proposed to continue the equity raising cost method adopted in AA4. This method estimates equity raising costs based on the following assumptions:[368]

- Retained earnings of 30 per cent of after-tax profits will be available to increase equity at zero cost.
- Dividends will be assumed to be paid at the benchmark payout ratio of 70 per cent of after-tax profits.
- 25 per cent of dividends paid out will be treated as being reinvested through dividend reinvestment plans, with an equity raising cost allowance of 1 per cent.
- Any further required equity is raised at the seasoned equity offering cost of 3 per cent.

1046. ATCO proposed to capitalise equity raising costs into the regulatory asset base and recover over 53 years (based on the weighted average economic life of the regulatory

[368] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, pp. 136-137.

asset base as at 1 January 2020).[369] Depreciating the equity raising costs based on the weighted average economic life of the regulatory asset base is the same method used during AA4. The ERA considered this a reasonable basis to recover the equity raising costs as the calculation of equity raising costs was not tied to funding one asset category over another.

1047. To determine whether equity funding is required the formula below is used. If the equity required is less than zero then equity raising is not required.

Equity Required = capital expenditure - debt component of the capital expenditure - (retained cash flow – dividend payout + dividend reinvestment)

1048. The equity raising cost is the sum of external equity raising cost and dividend reinvestment cost. When equity raising costs are greater than zero they are capitalised, otherwise the equity raising cost is zero.

1049. ATCO calculated that no equity would need to be raised and therefore no equity raising costs would be required over AA5.[370]

1050. The ERA supported the continuation of the equity raising cost method adopted in AA4.

1051. The ERA confirmed that equity required was less than zero and therefore equity raising costs were zero.

### *Draft decision required amendments - overview*

1052. In its draft decision, the ERA determined that:

- $239.8 million (47.1 per cent of ATCO's proposed expenditure) complied with the criteria set out in rule 79 of the NGR and could be included in the projected capital base for AA5.
- $269.5 million (52.9 per cent of ATCO's proposed expenditure) did not comply with the criteria set out in rule 79 of the NGR and should not be included in the projected capital base for AA5.

1053. The ERA determined that $239.8 million of ATCO's capital expenditure in AA5 was conforming capital expenditure:

- $179.7 million for network sustaining capital expenditure
- $12.1 million for network growth capital expenditure
- $26.8 million for IT capital expenditure
- $21.2 million for structures and equipment capital expenditure

1054. Table 112 shows the ERA's amended conforming capital expenditure for AA5 by project driver.

[369] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 137.

[370] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 136.

**Table 112: ERA's draft decision amended conforming capital expenditure by AA5 project driver ($ million real as at 31 December 2019)**

| | 2020 | 2021 | 2022 | 2023 | 2024 | Total |
|---|---|---|---|---|---|---|
| **ATCO proposed conforming capital expenditure (a)** | **103.3** | **102.2** | **100.4** | **102.2** | **101.2** | **509.3** |
| Sustaining amendments | -21.8 | -17.1 | -17.4 | -21.8 | -18.4 | -96.5 |
| Growth amendments | -31.2 | -31.7 | -32.6 | -32.7 | -34.1 | -162.3 |
| Structures and equipment amendments | -0.6 | -0.3 | -0.2 | -0.4 | -0.1 | -1.6 |
| Information technology amendments | -1.7 | -2.1 | -1.8 | -1.6 | -2.1 | -9.2 |
| **Total proposed reductions (b)** | **-55.2** | **-51.2** | **-52.0** | **-56.4** | **-54.7** | **-269.6** |
| Equity raising costs (c) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **ERA amended conforming capital expenditure (by project) (a+b+c)** | **48.1** | **51.0** | **48.3** | **45.8** | **46.6** | **239.7** |

*Source: ERA, Draft Decision Appendix 4, GDS Tariff Model, April 2019*. Some numbers may not add due to rounding.

1055. Table 113 breaks down the ERA's amended conforming capital expenditure for AA5 by asset class.

**Table 113: ERA's draft decision amended conforming capital expenditure by AA5 asset class ($ million real as at 31 December 2019)**

| Asset class | 2020 | 2021 | 2022 | 2023 | 2024 | Total |
|---|---|---|---|---|---|---|
| High pressure mains - steel | 2.7 | 1.9 | 4.1 | 2.5 | 0.5 | 11.7 |
| High pressure mains – polyethylene (PE) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Medium and low pressure mains | 21.7 | 24.5 | 23.8 | 22.9 | 23.3 | 116.3 |
| Regulators | 0.4 | 0.4 | 0.7 | 0.4 | 0.2 | 2.1 |
| Secondary gate stations | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 |
| Buildings | 0.7 | 0.3 | 0.2 | 0.0 | 0.0 | 1.2 |
| Meter and services pipes | 12.2 | 11.0 | 11.1 | 11.4 | 11.5 | 57.2 |
| Equipment and vehicles | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 4.7 |
| Vehicles | 3.0 | 4.4 | 1.7 | 2.6 | 3.1 | 14.8 |
| Information technology | 5.8 | 6.8 | 4.7 | 4.0 | 6.1 | 27.4 |
| Telemetry | 0.8 | 0.9 | 0.8 | 0.8 | 0.8 | 4.1 |
| Land | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Equity raising costs | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **ERA amended conforming capital expenditure by asset class** | **48.3** | **51.1** | **48.3** | **45.6** | **46.5** | **239.8** |

*Source: ERA, Draft Decision Appendix 4, GDS Tariff Model, April 2019. Some numbers may not add due to rounding.*

1056. Table 114 shows the ERA's draft decision amended values for calculating the projected capital base for AA5.

1057. The straight line method was the depreciation method used for calculating the depreciation on ATCO's regulatory asset base for AA4. The current cost accounting approach is consistent with the criteria under rule 89(1) of the NGR and complies with the NGL.

**Table 114: ERA's draft decision amended projected capital base for AA5 ($ million real as at 31 December 2019)**

| | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Opening capital base | 1,271.1 | 1,274.3 | 1,271.9 | 1,266.9 | 1,259.0 |
| Plus: Capital expenditure | 48.3 | 51.1 | 48.3 | 45.6 | 46.5 |
| Less: Depreciation | 45.1 | 53.5 | 53.9 | 53.9 | 54.5 |
| Less: Asset disposals | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Closing capital base** | **1,274.3** | **1,271.9** | **1,266.3** | **1,258.0** | **1,250.1** |

*Source: ERA, Draft Decision Appendix 4, GDS Tariff Model, April 2019. Some numbers may not add due to rounding.*

1058. Table 115 shows the ERA's draft decision amended values for calculating the projected capital base for AA5 in nominal dollars.

**Table 115: ERA's draft decision amended projected capital base for AA5 ($ million nominal)**

| | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Opening capital base (start of period) | 1,271.1 | 1,296.1 | 1,315.8 | 1,332.3 | 1,346.3 |
| Inflation | 21.7 | 22.2 | 22.5 | 22.8 | 23.0 |
| Opening capital base (end of period) | 1,292.8 | 1,318.3 | 1,338.3 | 1,355.1 | 1,369.3 |
| Plus: Capital expenditure | 49.1 | 52.8 | 50.8 | 48.8 | 50.6 |
| Less: Depreciation | 45.8 | 55.3 | 56.7 | 57.7 | 59.3 |
| Less: Asset disposals | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Closing capital base** | **1,296.1** | **1,315.8** | **1,332.3** | **1,346.3** | **1,360.7** |

*Source: ERA, Draft Decision Appendix 4, GDS Tariff Model, April 2019. Some numbers may not add due to rounding.*

1059. The ERA's draft decision included a required amendment to amend the projected capital base to reflect the values set out in Table 115.

## *ATCO's response to the draft decision*

1060. ATCO did not accept the ERA's draft decision amendments to reduce ATCO's forecast AA5 capital expenditure by $269.6 million.

1061. In response to the draft decision, ATCO proposed a revised AA5 forecast capital expenditure of $437.0 million, which was $72.3 million lower than its original proposal. This revised proposal is $197.3 million higher than the ERA's draft decision forecast AA5 capital expenditure of $239.7 million.

**Table 116 ATCO's revised forecast AA5 capital expenditure by driver ($ million real as at 31 December 2019)**

| Category | 2020 | 2021 | 2022 | 2023 | 2024 | Total |
|---|---|---|---|---|---|---|
| **Network sustaining** | **58.3** | **44.2** | **48.0** | **41.4** | **39.8** | **231.6** |
| Asset replacement | 45.9 | 36.7 | 39.0 | 37.3 | 37.8 | 196.8 |
| Asset performance and safety | 12.4 | 7.5 | 9.0 | 4.0 | 1.9 | 34.8 |
| **Network growth** | **24.0** | **27.5** | **30.4** | **31.7** | **32.5** | **146.1** |
| Customer-initiated | 23.3 | 27.2 | 30.2 | 31.4 | 32.4 | 144.4 |
| Demand-related | 0.7 | 0.3 | 0.2 | 0.3 | 0.1 | 1.6 |
| **Information technology** | **7.4** | **8.7** | **6.9** | **5.1** | **7.8** | **35.9** |
| **Structures and equipment** | **6.1** | **5.9** | **3.2** | **4.1** | **4.2** | **23.5** |
| Fleet | 3.3 | 4.7 | 1.9 | 3.0 | 3.1 | 16.0 |
| Facilities, plant and equipment | 2.8 | 1.2 | 1.3 | 1.1 | 1.1 | 7.5 |
| **Total** | **95.7** | **86.3** | **88.5** | **82.2** | **84.3** | **437.0** |

*Source:* ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, p. 186, Table 10.33.

1062. Of the total of ATCO's revised forecast capital expenditure for AA5:

- Network sustaining expenditure reduced from $276.1 million to $231.6 million in the revised proposal, which accounts for 53.0 per cent of the proposed capital expenditure for AA5.
- Network growth expenditure reduced from $174.3 million to $146.1 million, accounting for 33.4 per cent.
- Information technology expenditure reduced from $36.1 million to $35.9 million, accounting for 8.2 per cent.
- Structures and equipment expenditure increased from $22.8 million to $23.5 million, accounting for 5.4 per cent.

1063. The largest reduction in the network sustaining proposed expenditure category related to the security of supply projects for Bunbury, Caversham and Two Rocks, which were revised down from $49.0 million (original proposal) to $0.9 million (revised proposal). ATCO determined that more cost-effective alternative measures could be undertaken to reduce the risks to security of supply.

1064. The largest reduction in the network growth proposed capital expenditure was for the greenfield and brownfield customer connections which reduced from $154.3 million (original proposal) down to $126.3 million (revised proposal).

1065. Information technology expenditure had no major variations between the initial and revised proposal while structures and equipment expenditure increased due to a

delay in constructing a new depot with some costs that were due to occur in AA4 slipping into AA5.

### *Submissions to the ERA*

1066. Origin Energy[371] noted that ATCO had revisited its IT capital expenditure post the draft decision and included further information in support of its program and ATCO effectively maintains that its original forecast expenditure remains appropriate.

1067. Origin further noted that while there was a significant increase in forecast IT capital expenditure from the current regulatory period, the primary concern for Origin was ensuring that the proposed expenditure facilitated the alignment of the Western Australian Retail Gas Market with national markets, and to the extent this was not the case, Origin encouraged further assessment of the proposed expenditure.

1068. The Strata Community Association WA noted that the ERA did not accept ATCO's AA4 expenditure and AA5 proposed expenditure for sub-meter to master meter conversion program and that ATCO's response to the draft decision provided further information in support of the program.

1069. The Strata Community Association WA[372] supported the continuation of the sub-meter to master meter program as they believed it provided the following benefits to owners of strata properties:

- reduced costs to owners and residents
- improvement of property safety
- increased gas capacity
- improved reliability and reduced disruption.

1070. The Department of Mines, Industry Regulation and Safety[373] noted that the ERA's assessment of ATCO's proposed expenditure on security of supply relied on advice provided by its technical advisor (EMCa), and which the Department considered was not reflective of acceptable practice under the *Gas Standards Act 1972*.

1071. AGL noted that it largely supported and agreed with the draft decision and the required amendments. However, AGL sought clarification of the draft decision providing no capital expenditure allocation for greenfield and brownfield customer connections for B2 and B3 customers.

1072. AGL Energy[374] noted that ATCO's revised proposal set out how ATCO were compliant with the NGR and those connections should be included. AGL considered that some provision should be made to ensure there was continued growth of new connections within the gas market in the most efficient and effective manner possible, such as through the proposed Development Rebate Scheme.

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371 Origin Energy, *Submission to the ERA – Proposed revised access arrangement for the Mid-West and South-West Gas Distribution Systems – Draft Decision and ATCO revised proposal*, 9 July 2019.

372 Strata Community Association WA, *Submission to the ERA – Support for continuation of subs to masters gas meter program*, 9 July 2019.

373 Department of Mines, Industry Regulation and Safety – Building and Energy Division, *Comments on part of technical content of the draft decision of Access Arrangement for period 2020-2024*, 9 July 2019

374 AGL Energy, *Submission to the ERA –ERA Draft Decision on ATCO 2020-2024 Access Arrangement (AA5)*, 9 July 2019.

1073. Synergy[375] supported the ERA's draft decision to reduce ATCO's proposal by approximately $270 million on the basis that the AA5 expenditure did not adequately demonstrate that some aspects of forecast capital expenditure met the requirements of rules 74 and 79 of the NGR.

1074. Synergy noted that, due to ATCO's confidentiality claims, Synergy did not have the level of detailed information needed to provide an informed opinion on specific projects and programs that should be included in ATCO's AA5. Synergy noted, however, that it was clear that ATCO's capital expenditure had increased substantially in recent years, with AA4 and the revised proposed capital expenditure for AA5 being considerably higher than prior periods but against a backdrop of reduced demand.

1075. Synergy highlighted that the capital expenditure forecast was contributing materially to prices not just in AA5, but in many future regulatory periods as depreciation on this expenditure. Synergy recommended that the ERA consider the justification for each of the key projects, assessing the forecast methodology used to determine project costs, benchmarking and market testing unit rates for volumetric programs of work, and assessing the deliverability of the work plan based on recent performance.

1076. Kleenheat[376] noted that its main concern was that ATCO's revised AA5 capital expenditure forecast rejected most of the ERA's draft decision amendments. Kleenheat questioned whether ATCO's revised forecast truly satisfies the requirements of the NGR, that that of a 'prudent service provider acting efficiently'.

1077. Kleenheat had concerns about the removal of the residential brownfield growth capital expenditure including ATCO's claims that the residential brownfields met the requirements of the NGR separately, and is therefore excluded from the NPV calculation. Kleenheat noted ATCO's comment that it has an obligation under its distribution licence to "offer to connect customers that are within 20 metres of an existing gas main". Kleenheat submitted that given all of the capital expenditure for residential brownfield growth has been excluded from the NPV calculation, ATCO's comment implies that all of the brownfield residential new connections fall within the 20 metre range of a gas main.

1078. Kleenheat also recommended that the ERA question the reasonableness of ATCO's revised incremental operating expenditure assumption for B3 customers over AA5 as Kleenheat noted the change in assumptions by ATCO has been a significant driver in increasing the NPV.

1079. ATCO provided a late submission in which it responded to Kleenheat's submission on brownfields residential connections, and south to clarify that, consistent with the AA4 Final Decision, the justification for residential brownfields capital expenditure is as a regulatory obligation (rule 79(2)(c)(iii) of the NGR) due to ATCO's licence condition.

1080. In its late submission, ATCO noted it had incorrectly described the justification of residential brownfields as meeting the incremental revenue test (rule 79(2)(b) of the NGR) in its initial AA5 submission. ATCO has now clarified this in its revised proposal

[375] Synergy, *Submission to the ERA – Submission to the Economic Regulation Authority's draft decision on proposed revisions to the mid-west and south-west gas distribution systems access arrangement for 2020 to 2024,* 10 July 2019.

[376] Kleenheat, *Submission to the ERA – Kleenheat response to the Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024 and ATCO's 2020-2024 Revised Access Arrangement for the GDS*, 9 July 2019.

as being justified under rule 79 of the NGR (specifically, rule 79(2)(c)(iii)) as a regulatory obligation due to ATCO's licence condition.

1081. ATCO submitted that nothing has changed in ATCO's licence since the AA4 Final Decision that would now mean that brownfield expenditure cannot be justified as a regulatory obligation.

1082. ATCO also confirmed that the capital expenditure forecast related to new residential connections are all expected to be within 20 metres of a main. ATCO noted in the event a prospective residential customer is more than 20 metres from the main then a mains extension will be required, and ATCO will conduct an individual financial analysis on the mains extension to ensure prudent investment per rule 79 of the NGR. If required, ATCO will seek capital contributions for connections that are outside the standard installation and return a negative present value (as described in its brownfields business case).

## *Final decision*

### *Overview*

1083. The ERA has considered whether ATCO's revised proposed value of the projected capital base for AA5 meets the requirements of the NGR.

1084. The ERA obtained advice from its technical advisor EMCa to assist with the assessment of ATCO's revised proposed operating expenditure, and AA4 and AA5 capital expenditure.

1085. Table 117 compares conforming capital expenditure forecasts by cost driver for ATCO's initial and revised proposals against the ERA's draft decision and final decision. The reasons for the ERA's final decision follow in the remainder of this section.

**Table 117: Comparison of AA5 conforming capital expenditure forecasts by cost driver ($ million real as at 31 December 2019)**

| | ATCO initial proposal | ERA draft decision | ATCO revised proposal | ERA final decision |
|---|---|---|---|---|
| Network sustaining | 276.13 | 179.67 | 231.62 | 206.22 |
| Network growth | 174.31 | 12.09 | 146.06 | 145.82 |
| Information Technology | 36.10 | 26.82 | 35.88 | 34.82 |
| Structures and equipment | 22.76 | 21.18 | 23.49 | 23.33 |
| **Total** | **509.30** | **239.76** | **437.04** | **410.19** |

*Source:* (a) ATCO Gas Australia, *2020-24 Plan (Access Arrangement Information)*, p. 93, Table 12.1; (b) ERA, *Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024,* 18 April 2019, Table 62, p. 130; (c) ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information),* Table 10.33 p. 186; (d) ERA, *AA5 Final Decision AA5 Capital Expenditure Model*, October 2019.

### *Assessment of capital expenditure*

1086. In its revised proposal, ATCO forecast $437.0 million of capital expenditure over AA5, which was $72.3 million lower than its initial proposal. The two main areas that reduced between the initial and revised proposals were the security of supply projects in the network sustaining category and the customer-initiated connections in the network growth category.

1087. ATCO's revised proposal was $197.3 million higher than the ERA's draft decision of $239.7 million for the AA5 period.

1088. The ERA has assessed ATCO's proposed capital expenditure forecast for AA5 in accordance with the NGR using a three-step framework:

- Consider whether the expenditure satisfies the prudent service provider test set out in rule 79(1)(a) of the NGR.
- Evaluate whether the expenditure is justifiable on the grounds set out in rule 79(2) of the NGR.
- Assess whether forecasts or estimates comply with rule 74(2) of the NGR.

1089. The ERA has considered information provided by ATCO, public submissions and advice from its technical advisor, EMCa, to determine the amount of capital expenditure which meets the requirements of the NGR.

1090. The ERA has reviewed ATCO's forecast capital expenditure under the following cost drivers:

- sustaining capital expenditure
- growth capital expenditure
- IT capital expenditure
- structures and equipment capital expenditure.

1091. As set out above in paragraphs 266 to 267, ATCO calculated the proposed AA5 capital expenditure using forecast inflation from December 2018 to December 2019.

1092. The ERA has adjusted ATCO's expenditure forecast to account for two quarters of published CPI for the March and June quarters of 2019 and applied two quarters of forecast inflation using the inflation parameter determined as part of the calculation of the rate of return.

1093. The ERA has also adjusted ATCO's proposed labour escalation value it used in its revised proposal. As set out above in the operating expenditure section, at paragraphs 505 to 521, the value determined by the ERA is 0.54 per cent.

1094. As a result, the ERA, when approving expenditure proposed by ATCO, has adjusted the proposed value for this difference in inflation and labour escalation.

### *Sustaining capital expenditure*

1095. ATCO submitted a revised forecast for sustaining capital expenditure for AA5 of $231.6 million, which was $44.5 million lower than proposed initially and $52.0 million greater than the ERA determined in the draft decision.

1096. ATCO's revised proposal for sustaining capital expenditure for AA5 is split between the following categories:

- Asset replacement
  - $129.8 million for PVC mains replacement
  - $26.6 million for meter replacement program
  - $29.2 million for end-of-life replacement program
- Asset performance and safety
  - $0.8 million for security of supply projects
  - $5.7 million for SCADA projects
  - $14.9 million for PGP interconnection projects
  - $13.1 million for other network sustaining projects
  - $11.7 million for additional AA4 carry-over sustaining projects

1097. ATCO noted that, for its network sustaining capital expenditure, it took a proactive approach to safety across all its operations, including public safety. ATCO stated that safety was critical to ATCO and would continue to be during AA5 and beyond.

***PVC mains replacement***

1098. In its initial proposal, ATCO proposed to spend $127.4 million to replace 305km of PVC mains and service connections. In the draft decision, the ERA rejected 28km of PVC mains replacement program efficiencies to a value of $16.3 million, because the information provided for the expenditure did not satisfy the conforming capital expenditure criteria in rule 79 of the NGR.

1099. ATCO did not accept the ERA's draft decision and disallowance of 28km ($16.3 million) and maintained its original scope of works for the 305km of replacement at a revised cost of $129.8 million. 28km represents 10 per cent of the PVC mains replacement proposed as bundled works for program efficiency. The other 277km are the sections of mains that meet the replacement criteria.

1100. ATCO noted the overall proposal to replace 305km is less than one per cent of the PVC network and that this project meets rule 79(1)(a) of the NGR as the proposal is the most cost efficient and prudent solution for the overall PVC replacement program, and is justified under rule 79(2)(c)(ii) of the NGR as the capital expenditure is necessary to maintain the integrity of services.

1101. ATCO noted rule 79(2)(c)(ii) is achieved because the replacement of PVC with polyethylene mains will reduce the risk of asset failure, thereby reactive maintenance costs, improving the integrity of the overall network.

1102. ATCO noted the reasons for the 28km of additional mains were twofold: additional meterage due to tie-ins (11km), and the replacement of lower risk PVC sections which are located between high risk sections identified for replacement (17km) to minimise the number of transitional fittings required.[377]

1103. ATCO stated that the 11km of additional tie-ins were required where new mains must be extended to allow safe tie-in points. Locations for tie-ins into the existing mains

[377] ATCO, *2020-24 Revised Plan Access Arrangement Information for ATCO's Mid-West and South-West Gas Distribution System,* 12 June 2019, p. 144.

were selected away from road intersections and it was prudent to extend the mains replacement a short distance to reach an efficient tie-in location while addressing potential future leak points under the sealed surfaces.

1104. In addition, ATCO submitted that the cumulative 277km of PVC identified for replacement was not all connected. The mains were separated by sections of lower risk PVC that ranged in length from 20m to 500m, and these sections formed the additional 17km ATCO proposed to replace.

1105. In its revised proposal, ATCO provided options analysis, with the first option being the proposed 305km replacement and the second option being to replace 288km being the 277km of mains and 11km of tie-ins in safe points with the remaining 17km replaced at a future time.

1106. Replacing the 17km at a future time would lead to an overall increase in project costs of $3.9 million and result in a present value of costs that was $2.5 million more than ATCO's proposed option.

1107. In its report, EMCa noted that ATCO provided additional and clarifying information in response to EMCa's previous concerns of a lack of justification in ATCO's initial proposal.[378]

1108. EMCa noted that the 4.2 per cent higher upfront capital cost for replacing 6 per cent (17km) more pipe resulted in a 2.1 per cent better present value of costs outcome. EMCa was satisfied that ATCO's present value of costs calculation and the proposed capital expenditure of $129.8 million were reasonable.

1109. The ERA has reviewed ATCO's revised proposal including the options analysis undertaken and EMCa's analysis. The options analysis provided by ATCO shows that while a higher AA5 expenditure of $5.2 million would be incurred, in the long run, replacing all 305km of pipe has a lower present value of costs.

1110. The ERA considers that the 11km of additional replacement to allow safe tie-in points and for efficiency to ensure a tie-in point does not occur under sealed surfaces or at unsafe access points, is in accordance with good industry practice.

1111. The additional 17km of low-risk sections to be completed for efficiency reasons is justified by the present value cost analysis as well as providing a non-tangible benefit to the community by minimising the disruption of needing to return and replace these short length sections in the future. Based on the information ATCO has provided, the ERA also considers that undertaking the additional 17km is efficient expenditure in accordance with accepted good industry practice.

1112. The ERA considers that the full 305km of proposed PVC mains replacement, to be undertaken in AA5 is expenditure that would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services as required by rule 79(1)(a) of the NGR.

1113. The proposed expenditure is also justifiable under rule 79(2)(c)(ii) to maintain the integrity of services and is therefore considered conforming capital expenditure for inclusion in the projected capital base. As noted at paragraphs 1091 to 1094, the

[378] Energy Market Consulting Associates, Review of Technical Aspects of the Proposed Access Arrangement, October 2019, paragraph 147.

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ERA had adjusted the conforming amount for ERA's inflation forecasts and the ERA's approved labour escalator in accordance with rule 74 of the NGR. The ERA will therefore include $125.8 million in the projected capital base.

***Meter replacement program***

1114. In its initial proposal, ATCO proposed to spend $26.6 million replacing domestic meters, including $0.6 million to replace [redacted] commercial meters over AA5 under the end-of-life replacement program. The ERA's draft decision rejected the $0.6 million for the 50 commercial meters and reduced the remaining total by $0.7 million for an adjustment to ATCO's labour cost escalation.

1115. ATCO did not accept the ERA's draft decision reduction. As part of its revised proposal ATCO included the [redacted] commercial meters along with a revised project brief for the program. ATCO noted the commercial meter change program is an on-going program to replace gas meters sized greater than AL12 with its primary driver being to meet regulatory requirements for replacement at end-of-service life. ATCO noted the project is in line with its business strategy for Network Management.

1116. ATCO submitted the commercial meter replacement program satisfies rule 79(1)(a) of the NGR as ATCO has in place meter refurbishment processes for commercial meters. The use of refurbished meters saves costs by deferring the need for a new replacement meter, and this is applicable for most of the commercial meter program. However, ATCO noted where there is a limited availability of refurbished meters it uses new meters for replacement.

1117. ATCO submitted that these new meters also meet rule 79(1)(a) of the NGR because ATCO has a long-standing supply of meters from a key international supplier which was benchmarked against pricing obtained from ATCO in Canada through a tender process and found to be competitive. ATCO also notes that it has entered into a multi-year supply agreement with this supplier for a range of meters.

1118. ATCO submitted that the commercial meter replacement is a compliance driven project, and also conforms with rule 79(2)(c)(iii) of the NGR as the capital expenditure is necessary to comply with GSSSR 2000 (Part 3 – Metering Section 16), which requires a network operator to ensure that all installed commercial meters are replaced at intervals not exceeding 5 to 10 years.

1119. EMCa noted that ATCO's revised project brief changed the residual risk of the no action option to "intermediate non-ALARP". This is because ATCO considered the no action option to be unacceptable. ATCO's rationale for the revised risk rating was that ATCO was required to comply with the *Gas Standards Act 1972*, the *Gas Standards (Gas Supply and System Safety) Regulations 2000 Part 3 – Metering* (GSSSR): Section 16, and the *National Measurement Act 1960*.

1120. EMCa considers that non-compliance with the requirement to replace rotary meters every 10 years would be a breach of ATCO's licence conditions.

1121. EMCa noted that, while the requirements of the GSSSR have not changed since ATCO's initial proposal, EMCa considered that ATCO had clarified its obligations under the Gas Standards Act 1972 to replace commercial rotary type meters based on age and that its revised risk rating was consistent with its obligation.

1122. In addition, EMCa considered that ATCO had followed a prudent strategy of meeting the requirements of the Gas Standards Act 1972 with refurbished meters and that

ATCO's proposed volume ([redacted] replaced rotary meters per year) and $0.7 million cost of replacement meters was reasonable.

1123. The ERA has considered ATCO's revised proposal for commercial meter replacement, in particular ATCO's revised project brief setting out how this project was a compliance driven project in order to comply with GSSSR and avoid breaching its licence conditions.

1124. Also, the ERA notes that, where possible, ATCO replaces meters with refurbished meters that are re-calibrated and re-certified until it is no longer practical to do so. Only then are the meters disposed of and new meters purchased.

1125. The ERA considers that based on the new information in ATCO's revised proposal, the proposed capital expenditure for the commercial meter replacement program to be undertaken in AA5 is expenditure that would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services as required by rule 79(1)(a) of the NGR.

1126. The proposed expenditure is also justifiable under rule 79(2)(c)(iii) of the NGR to comply with a regulatory obligation or requirement and is therefore considered conforming capital expenditure for inclusion in the projected capital base. As noted at paragraphs 1091 to 1094, the ERA had adjusted the conforming amount for ERA's inflation forecasts and the ERA's approved labour escalator in accordance with rule 74 of the NGR.

***End-of-life replacement program***

1127. In its initial proposal, ATCO proposed to spend $33.6 million on end-of-life replacement programs in AA5. In its draft decision, the ERA accepted $30.2 million as conforming capital expenditure. The ERA did not accept $2.5 million of the regulators and meter facilities program to refurbish or replace components of a pressure regulating station and $0.9 million for labour cost escalation as being conforming capital expenditure.

1128. ATCO's revised proposal contained $29.2 million for the end-of-life replacement programs including $2.5 million for the pressure regulating station. The reduction in ATCO's revised proposal was due to a reduction of $4.6 million in the risers and services replacement program, a program which the ERA accepted in its draft decision.

1129. As stated above, in its draft decision, the ERA did not accept $2.5 million for the brought-forward replacement of pressure regulating stations from AA6 into AA5 as ATCO did not provide enough information to justify the project being brought-forward.

1130. In its revised proposal, ATCO has included proposed capital expenditure of $6.1 million for regulators and meter facilities which includes the $2.5 million for the pressure regulating station.

1131. ATCO submitted that the refurbishment of various degraded components of the pressure regulating station complies with the capital expenditure criteria in rule 79 of the NGR because:

- It is prudent to monitor and replace degraded components as they are identified, to achieve the lowest sustainable cost of providing services (rule 79(1)(a) of the NGR); and

- It is justified under rule 79(2)(c)(i) of the NGR as it is required to maintain and improve the safety of services, and under rule 79(2)(c)(ii) of the NGR to maintain the integrity of services.

1132. In its revised proposal, ATCO submitted that the forecast expenditure was to replace components within the pressure regulating station when it met its end of life, or a full replacement of the asset when it met the replacement criteria as set out in the Asset Lifecycle Strategy document. ATCO noted that pressure regulating stations were subject to a condition-based renewal strategy, and ATCO had replaced one pressure regulating station due to its poor condition during AA4.

1133. ATCO stated that recent maintenance records showed no pressure regulating station would require a full replacement in AA5, however, it was reasonable to forecast that it would need to replace components within the facility.

1134. As a result, ATCO sought a provisional budget to replace components of the pressure regulating station in AA5.

1135. EMCa reviewed ATCO's proposal and agreed with ATCO that a pressure regulating station was not required to be replaced during AA5. EMCa also noted that ATCO had not updated its Asset Lifecycle Strategy since its initial proposal and there was no evidence included in it to indicate that refurbishment costing $2.5 million would be required.

1136. In addition, based on information provided by ATCO, EMCa noted that it appeared that the $2.5 million was the estimated cost of pressure regulating station replacement rather than refurbishment. EMCa therefore remained of the view that there was insufficient evidence to support ATCO's need for $2.5 million for the replacement or refurbishment of the nominated pressure regulating station and considered that any further work could be accommodated within ATCO's maintenance (operating expenditure) budget.

1137. The ERA has reviewed ATCO's revised proposal and EMCa's analysis and considers that there is still a lack of information to substantiate the need to replace or refurbish a pressure regulating station in AA5 at a cost of $2.5 million.

1138. ATCO sought a provisional budget to replace components of the pressure regulating station in AA5. However, since maintenance records give no indication that a pressure regulating station would require replacement in AA5 and the Asset Lifecycle Strategy makes no mention of a refurbishment costing $2.5 million, the ERA considers that this proposed expenditure would not be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services in the AA5 period, as required by rule 79(1)(a) of the NGR. Also, as the maintenance records give no indication of replacement in AA5 the proposed expenditure is not justifiable under rule 79(2)(c)(ii) to maintain the integrity of services.

1139. The ERA has reviewed ATCO's reduction to its risers and services replacement program and its remaining expenditure for the regulators and meter facilities project, mechanical compression fittings, telemetry and the other programs (exposed steel on bridge crossings, cathodic protection assets and high-pressure warning signs) all of which the ERA accepted as conforming expenditure in its draft decision. The ERA considers that the proposed capital expenditure is expenditure that would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services as required by rule 79(1)(a) of the NGR.

1140. The ERA also considers that the proposed end-of-life replacement program capital expenditure is justified under several sections of rule 79(2) of the NGR for each of the programs. Specifically, the ERA considers that each of the end-of-life programs is justified under rule 79(2) of the NGR as proposed by ATCO.

- Risers and services – rule 79(2)(c)(i) of the NGR;
- Regulators and meter facilities (excluding the PRS) – rule 79(2)(c)(ii) of the NGR;
- Mechanical compression fittings – rule 79(2)(c)(i) of the NGR;
- Telemetry – rule 79(2)(c)(ii) of the NGR;
- Exposed steel pipe on bridge crossings - rule 79(2)(c)(ii) of the NGR;
- Cathodic protection assets - rule 79(2)(c)(i) of the NGR; and
- High Pressure warning signs - rule 79(2)(c)(i) of the NGR;

1141. As a result, the proposed expenditure is considered conforming capital expenditure for inclusion in the projected capital base. As noted at paragraphs 1091 to 1094, the ERA had adjusted the conforming amount for ERA's inflation forecasts and the ERA's approved labour escalator in accordance with rule 74 of the NGR.

***Security of supply***

1142. In its initial proposal, ATCO proposed $49 million for security of supply projects at three locations on the network (Caversham, Bunbury and Two Rocks). The ERA rejected all $49.0 million of the proposed expenditure in its draft decision.

1143. The rejection of the proposed security of supply expenditure by the ERA was based on a different assessment of the risk and outcomes for a loss of gas supply event; and the consequences of a supply interruption compared to ATCO's proposal. There was also a difference between the ERA and ATCO on ATCO's risk tolerance criteria for its security of supply projects.

1144. In its revised proposal, ATCO accepted aspects of EMCa's commentary regarding security of supply risk assessment method and outcomes. Specifically, it accepted EMCa's commentary regarding frequency analysis and consequence analysis and updated its method accordingly.

1145. As a result of the feedback and subsequent revision to ATCO's supply risk method, ATCO revised its security of supply capital expenditure from $49.0 million to [redacted] million to reduce its high-risk assessment to an acceptable level.

1146. ATCO submitted that its proposed security of supply expenditure satisfies rule 79(2)(c)(ii) of the NGR as the capital expenditure is necessary to maintain the integrity of services and is required to avoid a major gas outage and to reduce supply risk to an acceptable level.

1147. ATCO proposed to spend the [redacted] million at Caversham on the installation of a bypass to reduce the high supply risk to negligible. At the other two locations – Bunbury and Two Rocks – ATCO proposed to use operating expenditure instead of capital expenditure, to undertake daily patrols to reduce the risk from high to intermediate ALARP.

1148. ATCO did not accept other EMCa commentary on ATCO's risk tolerance criteria, security of supply frequency and consequence assessments.

1149. EMCa noted in its report that ATCO had revised its supply risk assessment method and assumptions and determined that there were more cost-effective solutions to mitigate the inherent risk than proposed in ATCO's initial proposal.

1150. EMCa noted that, although ATCO had not undertaken an ALARP test analysis, it considered ATCO's revised capital expenditure was likely to satisfy the ALARP test and the capital expenditure criteria. EMCa considered that the substitution of operating expenditure for regular patrols in place of the capital expenditure proposed in ATCO's initial proposal was consistent with accepted good industry practice.

1151. The ERA has reviewed ATCO's revised proposal and EMCa's analysis and notes ATCO has amended its revised proposal based on feedback in the draft decision, and has significantly reduced its capital expenditure proposal for security of supply.

1152. Based on ATCO's revised proposal and information provided by ATCO, the ERA considers that the proposed capital expenditure for the security of supply to be undertaken in AA5 is expenditure that would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services as required by rule 79(1)(a) of the NGR.

1153. The proposed expenditure is also justifiable under rule 79(2)(c)(ii) of the NGR to comply with a regulatory obligation or requirement and is considered conforming capital expenditure for inclusion in the projected capital base. As noted at paragraphs 1091 to 1094, the ERA had adjusted the conforming amount for ERA's inflation forecasts and the ERA's approved labour escalator in accordance with rule 74 of the NGR.

***SCADA projects***

1154. In its initial proposal, ATCO proposed $12.6 million for SCADA projects. The ERA rejected this in total in its draft decision. ATCO submitted a revised proposal for SCADA in AA5 of $5.7 million.

1155. ATCO noted that it had proposed three programs in its AA5 initial proposal: SCADA systems and infrastructure, enhanced data acquisition, and automated meter reading. ATCO considered that these original three business cases attempted to address multiple programs of work, with multiple investment drivers and a combination of different benefits.

1156. ATCO considered that this led to confusion between the costs involved, different technology solutions and how ATCO was going to achieve future cost reductions, manage risk, and improve monitoring performance and asset integrity.

1157. To improve clarity on this broad program of works, ATCO restructured its proposal into five independent business cases each representing a stand-alone project, rather than a broad SCADA-related program with interdependent activities.

1158. The five SCADA projects to be evaluated are listed below:

- automated network pressure control
- remote network isolation
- constant monitoring of gas quality
- remote monitoring of corrosion protection systems
- enable automated meter reading

Automated network pressure control

1159. The automated network pressure control project is designed to reduce ongoing operating expenditure, defer or reduce capital expenditure and provide a platform for continuous asset management improvement through remote network adjustment.

1160. The cost of this project is $[redacted] million in capital expenditure with recurrent operating expenditure of $0.2 million per year. ATCO noted that the NPV for the project was $2.4 million with a payback period of seven years. The benefits of the project include reducing UAFG, operations and maintenance costs, and capital expenditure related to mains replacement or new mains, as well as deferring future reinforcement projects.

1161. ATCO submitted that this project meets rule 79(2)(a) of the NGR as the overall economic value of the expenditure is positive.

1162. EMCa observed that the positive NPV was derived from avoided capital expenditure but was also highly sensitive to changes in the assumed capital expenditure savings. EMCa considered that the project would still likely be NPV positive with a 20 per cent reduction of claimed capital expenditure benefits and that there were unquantified intangible benefits from the project which presented achievable opportunities for ATCO to improve operational performance.

1163. On that basis, EMCa considered ATCO's proposed project applied principles that were consistent with good industry practice and the $[redacted] million was reasonable.

1164. The ERA has reviewed ATCO's revised proposal documentation and NPV analysis and considers that the proposed capital expenditure for the automated network pressure control project is expenditure that would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services as required by rule 79(1)(a) of the NGR.

1165. The proposed expenditure is also justifiable under rule 79(2)(a) as the overall economic benefit of the expenditure is positive and is considered conforming capital expenditure for inclusion in the projected capital base. As noted at paragraphs 1091 to 1094, the ERA had adjusted the conforming amount for ERA's inflation forecasts and the ERA's approved labour escalator in accordance with rule 74 of the NGR.

Remote network isolation

1166. The remote network isolation program is designed to maintain the integrity of services and prevent catastrophic supply loss of gas in the event of an upstream supply emergency. ATCO noted that the ability to quickly limit supply disruption to the minimum number of customers resulted in significantly reduced reinstatement time and costs.

1167. ATCO submitted that this proposed expenditure meets rules 79(1)(a) and 79(2)(c)(ii) of the NGR because it is consistent with accepted good industry practice that the capital expenditure is justified and necessary to maintain the integrity of services.

1168. ATCO proposed to spend [redacted] million on the project in AA5. ATCO noted it had estimated that five remote isolation projects may be proposed over the AA5 period upon its further review into intermediate supply risk pipelines.[379]

1169. In its report, EMCa noted that the justification appeared to be at the conceptual stage, as shown by several comments about further work being required in its business case. ATCO noted in its business case that:

> ATCO intend to review the Intermediate supply risk pipelines and critical customers over the AA5 period and establish whether further action can be taken to reduce supply risks to ALARP on the network.[380]

1170. In addition, ATCO did not provide evidence that the proposed [redacted] million expenditure met the requirements of the ALARP test, particularly considering the changes it has made to its security of supply risk analysis.

1171. Therefore, EMCa did not consider that ATCO had provided sufficient justification to demonstrate that the project complied with the capital expenditure criteria.

1172. The ERA has reviewed ATCO's revised proposal and considered EMCa's analysis and is not satisfied that the detail provided is enough to support the project expenditure, particularly the lack of evidence that the expenditure meets the ALARP test. The ERA considers, based on what appears to be conceptual stage information for projects that may be proposed, that this proposed expenditure would not be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services as required by rule 79(1)(a) of the NGR.

Constant monitoring of gas quality

1173. ATCO stated that the project of constant monitoring of gas quality was needed to reduce ongoing operating expenditure associated with gas quality sampling and testing. The project involves installing odorant monitoring devices at key locations in the gas distribution network to enable remote data acquisition and higher consistency of sampling results.

1174. ATCO noted that the capital expenditure was [redacted] million over two years of the AA5 period, with operating expenditure of [redacted] million over four years of the AA5 period resulting in a positive $0.6 million NPV and a payback period of six years.

1175. ATCO submitted that this proposed expenditure meets rule 79(1)(a) of the NGR because it is consistent with accepted good industry practice and rule 79(2)(a) of the NGR because ATCO's assessment shows the overall economic value of the expenditure is positive.

1176. EMCa reviewed the project and noted that, given the asset life of the telemetry components was 10 years and the relatively robust NPV outcome for unfavourable variance in operating expenditure savings, the expenditure would be in accordance with accepted good industry practice.

1177. The ERA has reviewed ATCO's proposal and is satisfied with the detail provided to justify the project, including the positive NPV calculation, and notes the payback period is achieved at just after the half way point of the life of the asset. The ERA

[379] ATCO, *2020-24 Revised Plan Access Arrangement Information for ATCO's Mid-West and South-West Gas Distribution System,* 12 June 2019, p. 155.

[380] ATCO, Attachment 10.110 Business Case: Remote Network Isolation CONFIDENTIAL, p. 5.

considers that the proposed capital expenditure for the project of constant monitoring of gas quality is expenditure that would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services as required by rule 79(1)(a) of the NGR.

1178. The proposed expenditure is also justifiable under rule 79(2)(a) as the overall economic benefit of the expenditure is positive and is considered conforming capital expenditure for inclusion in the projected capital base. As noted at paragraphs 1091 to 1094, the ERA had adjusted the conforming amount for ERA's inflation forecasts and the ERA's approved labour escalator in accordance with rule 74 of the NGR.

Remote monitoring of corrosion protection systems

1179. As part of its remote monitoring of corrosion protection systems project, ATCO proposed installing 106 pipeline cathodic protection test point monitoring devices and 30 pipe-to-soil coupons to enable remote data acquisition of direct and alternating current levels on the pipeline.

1180. ATCO noted that the project would cost $[redacted] million in capital expenditure in the AA5 period with operating expenditure of $[redacted] million over the AA5 period. The project has an NPV of $0.1 million with a payback period of eight years.

1181. ATCO submitted that this proposed expenditure meets rule 79(1)(a) of the NGR because it is consistent with accepted good industry practice to achieve the lowest sustainable costs and is justified under rules 79(2)(a) and 79(2)(c)(ii) because ATCO's assessment concludes the overall economic value of the expenditure is positive and is necessary to maintain the integrity of services.

1182. EMCa noted that while the NPV benefit was marginal, the assumed payback period was less than the average asset life of 10 years for the telemetry components and EMCa considered the expenditure would be in accordance with accepted good industry practice.

1183. The ERA has reviewed ATCO's proposal and the NPV calculation which is positive and has a payback period of eight years, being two years before the average asset life of the telemetry components of the project.

1184. From the revised information provided, including the NPV analysis, the ERA considers that the proposed capital expenditure for the remote monitoring of corrosion protection systems project is expenditure that would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services as required by rule 79(1)(a) of the NGR.

1185. The proposed expenditure is justifiable under rule 79(2)(c)(ii) of the NGR to maintain the integrity of services. The ERA notes the expenditure would also be justifiable under rule 79(2)(a) of the NGR as the overall economic benefit of the expenditure is positive. As a result, the expenditure is considered conforming capital expenditure for inclusion in the projected capital base. As noted at paragraphs 1091 to 1094, the ERA had adjusted the conforming amount for ERA's inflation forecasts and the ERA's approved labour escalator in accordance with rule 74 of the NGR.

Enable automated meter reading

1186. In its revised proposal, ATCO again proposed capital expenditure for an automated meter reading program at a total cost of $[redacted] million for AA5. ATCO noted that the

scope of this project had changed from its initial submission, from installing the upfront technology as part of the capital expenditure program, to the gas retailer being able to choose from available options dependent on customer requirements funded by a capital contribution.

1187. ATCO noted that the revised business case was based on a broader economic value rather than purely on ATCO's cost basis. ATCO stated that the investment need for automated meter reading was to reduce overall costs of metering obligations for ATCO and the retailers and make gas supply simple for customers.

1188. The NPV for the project is $0.5 million with a payback period of 17 years.

1189. ATCO submitted that this proposed expenditure meets rule 79(1)(a) of the NGR because it is consistent with accepted good industry practice to achieve the lowest sustainable costs and is justified under rule 79(2)(a) of the NGR because ATCO's assessment concludes the overall economic value of the expenditure is positive with the value directly accruing to ATCO, retailers and customers. The benefits outlined in the NPV analysis have a base assumption of retailer and customer take up and the demand for given services.

1190. EMCa noted that it considered the project should be fully funded by retailers (who may choose to pass on the cost to the requesting customers (that is, user pays). EMCa considered that this project would not be in accordance with good industry practice and did not satisfy the capital expenditure criteria.

1191. From the information provided, the project appears to be a work in progress with ATCO noting that the project may or may not use SCADA systems if employed, however, ATCO also noted, it would have similar integration costs no matter what embedded technology platform was used.

1192. In ATCO's initial proposal, ATCO proposed automated meter reading as a 10-year trial project. The ERA did not approve this trial project expenditure in its draft decision. ATCO revised its proposal and no longer considered that it needed a trial. ATCO proposed implementing the automated meters when requested by a customer or retailer, with a payback period of 17 years.

1193. ATCO noted in its revised business case under the 'adequacy of solution' section that this automated meter reading option is staged over the latter years of AA5 and into AA6, and the rollout timeframe is based on the take up of 'smart metering' or locking mechanisms by the customer and retailers.

1194. ATCO noted in its business case that the benefits of automated meter reading may be realised by the end of 2027, but this will depend on the acceptance of the customer and retailer funded approach ATCO is proposing as part of its chosen automated meter reading option.

1195. Under the Stakeholder Engagement section of ATCO's automated meter reading business plan, ATCO noted that its 2017 'voice of customer' initiative identified that 97 per cent of residential and small to medium enterprise participants valued long-term security of supply and fewer disruptions over short term savings in their bill. ATCO noted its automated meter reading option has the potential to deliver additional information for asset management network modelling systems and in turn deliver more informed decisions on network performance.

1196. The information noted at paragraph 1195 is the extent of information ATCO included in its stakeholder engagement section. ATCO's business case does not appear to include any information on engagement with stakeholders on the potential take up of 'smart metering' or locking mechanisms or on the acceptance of the customer and retailer funded approach ATCO is proposing as part of its chosen automated meter reading option. The business case also does not appear to include any information on how ATCO has determined these factors in its NPV analysis.

1197. The ERA has reviewed ATCO's revised proposal and based on the information provided by ATCO is not satisfied that the detail provided is enough to support the project expenditure. The ERA considers that this proposed expenditure would not be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services in this AA5 period.

***Parmelia Gas Pipeline interconnection projects***

1198. In its initial proposal, ATCO proposed capital expenditure of $13.5 million on the Forrestfield and Rockingham PGP interconnection projects. The ERA did not allow this expenditure in its draft decision. ATCO did not accept the ERA's draft decision and proposed a revised AA5 forecast of $14.9 million which included a carry-over amount of $1.4 million from AA4.

1199. ATCO provided additional commentary on the ERA's draft decision and on EMCa's final technical report in its revised proposal.

1200. ATCO considers that the project conformed to the capital expenditure rules specified in rule 79(1)(a) of the NGR as the capital expenditure was 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 providing services.

1201. ATCO also considered that the proposed expenditure for the PGP interconnections meets rule 79(2)(c)(ii) of the NGR to maintain the integrity of services, as its recommended option was to install additional gate stations to interconnect with the PGP to protect the reliability of gas supply to ATCO's gas distribution networks. ATCO stated this would reduce the number of customers lost from 310,000 to 19,400, a 94 per cent reduction in consequence safeguarding gas supply to residential customers against interruption on the DBNGP upstream pipeline.

1202. EMCa reviewed ATCO's revised proposal. EMCa noted that in its final technical report[381] that, with a risk rating of intermediate, a cost-benefit analysis was required to demonstrate that the proposed expenditure was not "grossly disproportionate" to the benefit in accordance with the requirements of the ALARP test.

1203. In its revised proposal, ATCO did not change its risk assessment that the loss of supply from the DBNGP was a hypothetical event which could result in a catastrophic loss, resulting in a risk rating of intermediate.

1204. EMCa noted that ATCO provided the following new information:[382]

[381] Energy Market Consulting Associates, *Review of Technical Aspects of the Proposed Access Arrangement,* March 2019, paragraphs 571-575.

[382] Energy Market Consulting Associates, *Review of aspects of ATCO's 2020-24 Revised Plan*, October 2019, p. 32, paragraph 175.

- The reason for delays to the proposed PGP interconnection project to be completed in the AA4 period was a combination of commercial and technical matters.
- In its view, even though it agreed that the loss of supply from the DBNGP was a hypothetical event, a 1984 event on the PGP resulting in its isolation for repair indicated that these events were not unheard of, and that the risks of these incidents and their potential consequences should be treated as far as reasonably practicable.
- It would cost ATCO an estimated $21.7 million in operating expenditure to restore supply in the event of a supply loss to 310,000 customers (which ATCO assessed to be the worst case).
- Through its Voice of Customer program, ATCO's customers agreed that putting preventative measures in place to minimise disruptions was important to prevent the potential consequences of a supply loss event.
- The timing of the Waitsia Stage 2 development was not certain but was expected to be in full operation by 2022.
- ATCO determined that the proposed project would incur a cost of 0.74 cents per year per B3 customer.

1205. EMCa also noted that the Department of Mines, Industry Regulation and Safety's Building and Energy Division provided a submission to the ERA in response to the draft decision which disagreed with some of the risk mitigation factors suggested in EMCa's final technical report. EMCa took this into account when reviewing ATCO's revised proposal.

1206. Taking into consideration the submission from the Department of Mines, Industry Regulation and Safety, and ATCO's new information, EMCa considered the information provided was not sufficient to demonstrate that ATCO's proposed $14.9 million capital expenditure for the two projects satisfied the ALARP test (which was still required given that ATCO's assessed risk did not change from intermediate). The applicable standard requires (among other things) that any risk that is determined to be intermediate shall be assessed to confirm that the risk meets the ALARP test.

1207. EMCa note that a risk cannot be considered as meeting the ALARP test until the following has been completed:

- Analysis of the means of further reducing the risk, including an analysis of various options.
- Review as to the reasons why these further means have not been adopted.
- Substantiation that the sacrifice (including cost) of further risk reduction measures is "grossly disproportionate" to the benefit gained from the reduced risk that would result.

1208. EMCa considered that ATCO had identified various options and proposed significant expenditure, but importantly had not demonstrated that the cost of the project is not "grossly disproportionate" to the benefit gained from the reduced risk. Therefore, EMCa considered that ATCO had not demonstrated that the proposed $14.9 million would be in accordance with accepted good industry practice and was unlikely to comply with the capital expenditure criteria.

1209. The ERA has reviewed ATCO's revised proposal submission and additional information and has considered EMCa's analysis. The ERA is not satisfied that all

aspects of the ALARP test have been completed to justify the expenditure which is required when an identified risk is rated as intermediate.

1210. As a result, the ERA considers that this proposed PGP interconnection expenditure would not be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services as required by rule 79(1)(a) of the NGR.

***Other network sustaining capital expenditure projects and programs***

1211. ATCO proposed $12.7 million for other network sustaining projects in its initial submission being $9.2 million for inline inspections and $3.5 million for a number of network improvement projects. The ERA accepted these projects in the draft decision to the value of $12.3 million with the difference being due to a labour cost escalation adjustment.

1212. In its revised proposal, ATCO has not altered the scope of the two project groups (inline inspections and network improvement projects) but revised the forecast up to $13.1 million for the AA5 period. This increase is due to Consumer Price Index and labour cost adjustments by ATCO.

1213. The ERA has reviewed the proposed expenditure by ATCO in its revised proposal and initial proposal. The ERA notes the scope of the projects has not changed since ATCO's initial proposal and that the ERA determined, in the draft decision, that the proposed expenditure was conforming capital expenditure.

1214. The ERA considers that the proposed capital expenditure for the inline inspection projects and the various network improvement projects is expenditure that would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services, meeting the requirements of rule 79(1)(a) of the NGR.

1215. The proposed expenditure for these projects is also justifiable under several sections of rule 79(2) of the NGR. Specifically, the ERA considers that each of the 'other' network sustaining capital expenditure projects and programs is justified under rule 79(2) of the NGR as proposed by ATCO.

- Inline inspection – rule 79(2)(c)(i) of the NGR;
- Meter Compliance – rule 79(2)(c)(iii) of the NGR;
- Installation of 'step touch' mitigation systems – rule 79(2)(c)(i) of the NGR;
- Facility upgrade Pressure Reduction Station security – rule 79(2)(c)(i) of the NGR;
- Pressure monitoring devices – rule 79(2)(c)(ii) of the NGR; and
- Vehicle protection – rule 79(2)(c)(i) of the NGR.

1216. As a result, the proposed expenditure is considered conforming capital expenditure for inclusion in the projected capital base. As noted at paragraphs 1091 to 1094, the ERA had adjusted the conforming amount for ERA's inflation forecasts and the ERA's approved labour escalator in accordance with rule 74 of the NGR.

***Carry-over projects from AA4 into AA5 due to updated 2019 forecast***

1217. ATCO noted that, since the draft decision, it had revised the 2019 forecast of works which has implications for AA5. As a result, four additional projects from AA4 will be carried over into AA5 that did not form part of ATCO's initial submission.

1218. ATCO proposed to spend $10.4 million on 'end-of-life replacement – metallic mains' to replace [redacted] km of mains under railways and freeways. ATCO deferred this project from AA4 to AA5 due to complexities of the construction extending the planning phase of the project as the assets underneath the railways and freeways were within the Public Transport Authority's jurisdiction.

1219. ATCO submitted that this was an ongoing replacement program and justified under rule 79(2)(c)(ii) of the NGR as it was required to maintain integrity of services.

1220. ATCO noted that the metallic mains replacement project made up most of the expenditure related to the carry-over network sustaining projects from AA4 to AA5. The additional works will not affect the deliverability of the remaining capital expenditure program as the works will be tendered out and carried out by a different contractor labour.

1221. The ERA has reviewed ATCO's proposed revised expenditure for 'end-of-life replacement of metallic mains'. The ERA notes that this is a carry-over of an AA4 project that the ERA has previously determined in its draft decision, meets the requirements of rule 79 of the NGR.

1222. As a result, the ERA considers that the proposed capital expenditure for carry-over expenditure for the AA4 project of 'end-of-life replacement of metallic mains' is expenditure that would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services, as required by rule 79(1)(a) of the NGR.

1223. The proposed expenditure is also justifiable under rule 79(2)(c)(ii) as it is required to maintain integrity of services and is considered conforming capital expenditure for inclusion in the projected capital base. As noted at paragraphs 1091 to 1094, the ERA had adjusted the conforming amount for ERA's inflation forecasts and the ERA's approved labour escalator in accordance with rule 74 of the NGR.

1224. ATCO proposed to spend $0.9 million on 'end-of-life replacement – CBD services'. The CBD services project was approved in 2018 to address corroded network components in the CBD and network components within cavity walls with the potential to leak into buildings. These cases were identified as unacceptable risks through a Formal Safety Assessment.

1225. ATCO noted that the project was planned to be completed by the end of 2019. ATCO's delay in completing the program was due to difficulties in the planning phase: establishing building ownership and thus affecting communications for permissions and notifications of works. Also, restrictions from the City of Perth limited the construction to night works and off-peak time to minimise the effect on the community.

1226. ATCO submitted that the replacement of gas services in the CBD due to poor condition and non-compliance complies with rule 79(1)(a) of the NGR because it is prudent to replace assets when they are no longer fit for purpose and this project achieves the lowest sustainable cost of providing services by using approved contract agreements following a competitive process. The project is also justified under rule 79(2)(c)(i) of the NGR as it is required to maintain and improve the safety of services.

1227. The ERA has reviewed the proposed expenditure for 'end-of-life replacement for CBD services'. The ERA notes that this is a carry-over of an AA4 project that the ERA has previously determined in its draft decision, meets the requirements of rule 79 of the NGR. The project is carried into AA5 due to difficulties undertaking the work resulting from delays in establishing ownership and communicating with building owners and time restrictions placed upon ATCO to undertake the work.

1228. As a result, the ERA considers that the proposed capital expenditure for carry-over expenditure for the AA4 project of 'end-of-life replacement for CBD services' is expenditure that would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services, as required by rule 79(1)(a) of the NGR.

1229. The proposed expenditure is also justifiable under rule 79(2)(c)(i) of the NGR as it is required to maintain and improve the safety of services and is considered conforming capital expenditure for inclusion in the projected capital base. As noted at paragraphs 1091 to 1094, the ERA had adjusted the conforming amount for ERA's inflation forecasts and the ERA's approved labour escalator in accordance with rule 74 of the NGR.

1230. ATCO proposed to spend $0.2 million on 'end-of-life replacement – regulator set lids' in the AA5 period. ATCO noted a delay in the design and external load tests of the new regulator set lids in AA4 led to a carry-over of $0.2 million to replace and additional [redacted] lids in AA5.

1231. ATCO considered that this project satisfied rule 79(2)(c)(i) of the NGR as the capital expenditure was necessary to maintain and improve the safety of the services. The project maintains safety by ensuring corroded pit lids were replaced prior to an incident occurring.

1232. ATCO submitted that this project also satisfied rule 79(2)(c)(iii) of the NGR as the capital expenditure is necessary to comply with a regulatory obligation as this project will replace old legacy designed lids with a new design that complies with the maximum lifting weight, as set out in ATCO's Occupational Health and Safety requirements.

1233. The ERA has reviewed the proposed expenditure for 'end-of-life replacement for regulator lid sets'. The ERA notes that this is a carry-over of an AA4 project that the ERA has previously determined in its draft decision, meets the requirements of rule 79 of the NGR, into AA5 due to a delay in the design and testing to meet health and safety requirements and standards.

1234. As a result, the ERA considers that the proposed capital expenditure for carry-over expenditure for the AA4 project of 'end-of-life replacement for regulator lid sets' is expenditure that would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services, as required by rule 79(1)(a) of the NGR..

1235. The proposed expenditure is justifiable under rule 79(2)(c)(iii) as it is required to comply with a regulatory obligation or requirement. This expenditure would also be justified under rule 79(2)(c)(i) of the NGR as it is required to maintain and improve the safety of services. As a result, the proposed expenditure is considered conforming capital expenditure for inclusion in the projected capital base. As noted at paragraphs 1091 to 1094, the ERA had adjusted the conforming amount for ERA's

inflation forecasts and the ERA's approved labour escalator in accordance with rule 74 of the NGR.

1236. ATCO proposed to spend $0.2 million on an 'asset performance – meters compliance' project in the AA5 period. The project aimed to remediate [redacted] non-compliant gas meter installations. ATCO noted that the work was delayed due to complexity of site remediation as the sites were in high-density locations and required bespoke designs for vent line, ventilation and security treatments.

1237. ATCO considered that the project satisfied rule 79(2)(c)(i) of the NGR as the capital expenditure was necessary to maintain and improve the safety of the services. The project maintains safety by ensuring that the meter was in a safe location protected from damage by vehicle impact and unauthorised access.

1238. In addition, ATCO considered that the project satisfied rule 79(2)(c)(iii) of the NGR as the capital expenditure was necessary to comply with a regulatory obligation. This project installs vent line and appropriate ventilation of the gas meter and regulator to ensure the set-up met Australian Standards 4645.1.

1239. The ERA has reviewed the proposed expenditure for the 'asset performance – meters compliance' project. This is a carry-over of an AA4 project that the ERA has previously determined in its draft decision, meets the requirements of rule 79 of the NGR, into AA5 due to complexity of site remediation as the sites were in high-density locations and required bespoke designs for vent line, ventilation and security treatments.

1240. As a result, the ERA considers that the proposed capital expenditure for carry-over expenditure for the AA4 project of meters compliance project is expenditure that would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services, as required by rule 79(1)(a) of the NGR..

1241. The proposed expenditure is also justifiable under rule 79(2)(c)(iii) of the NGR as it is required to comply with a regulatory obligation or requirement. This expenditure would also be justified under rule 79(2)(c)(i) of the NGR as it is required to maintain and improve the safety of services. As a result, the proposed expenditure is considered conforming capital expenditure for inclusion in the projected capital base. As noted at paragraphs 1091 to 1094, the ERA had adjusted the conforming amount for ERA's inflation forecasts and the ERA's approved labour escalator in accordance with rule 74 of the NGR.

### *Growth capital expenditure*

1242. ATCO submitted a revised forecast for growth capital expenditure for AA5 of $146.1 million, which was $28.2 million less than its initial proposal. In its draft decision, the ERA approved $12.1 million of growth capital expenditure and disallowed all greenfield and brownfield expenditure after determining that the incremental revenue did not exceed the incremental expenditure for these projects.

1243. Since the draft decision, ATCO noted that it now had actual 2018 numbers and revised its unit rates and AA5 forecasts. ATCO's forecast growth capital expenditure of $146.1 million is based on 67,350 new customers connecting to the network in AA5.

***Greenfield and brownfield capital expenditure***

1244. In its initial proposal, ATCO included growth capital expenditure for greenfield and brownfield connections of $156 million. Greenfield expenditure for B2 and B3 customers was forecast at $144.5 million and brownfield expenditure was forecast at $11.5 million over AA5.

1245. In the draft decision, the ERA did not accept any of the proposed greenfield or brownfield expenditure after recalculating the NPV calculations for the projects. After adjusting the inputs, both NPV calculations resulted in negative results and so were rejected because the incremental revenue did not exceed the incremental expenditure.

1246. ATCO did not agree with the ERA's position and submitted that the AA5 growth capital expenditure for greenfield and brownfield met rule 79 of the NGR for the following reasons:

- Both greenfield and brownfield capital expenditure was consistent with that which would be incurred by a prudent service provider acting efficiently in accordance with accepted good industry practice, to achieve the lowest sustainable cost. Continuing to expand the network ensured that operating costs were spread over an increasing number of customers, helping to drive down the average cost per customer.
- Greenfield growth capital expenditure satisfied rule 79(2)(b) of the NGR, in that the present value of the expected incremental revenue generated as a result of the expenditure exceeded the present value of the expenditure.
- Residential brownfield growth capital expenditure satisfied rule 79(2)(c)(iii) of the NGR, as ATCO had an obligation under its distribution licence to offer to connect customers that are within 20m of an existing gas main.
- Commercial brownfields growth capital expenditure satisfied rule 79(2)(b) of the NGR, in that the present value of the expected incremental revenue generated as a result of the expenditure plus the historical level of capital contributions received from customers exceeded the present value of the expenditure.

1247. In its revised proposal, ATCO submitted its revised NPV models and proposed growth capital expenditure for greenfields and brownfields of $127.9 million, including network reinforcement expenditure. This is made up of $116.3 million for B2 and B3 greenfields connections and $11.6 million for B2 and B3 brownfields connections.

1248. ATCO's revised NPV models and revised proposal outline the changes made since its initial AA5 proposal. The ERA has made changes to ATCO's revised NPV models. The elements of the NPV models that have changed are explained below.

***Demand***

1249. ATCO noted that the capital expenditure was based on 61,461 residential (B3) new connections in greenfield developments and 1,850 small commercial (B2) connections in greenfield and brownfield areas over the AA5 period.

1250. The capital expenditure required to connect 3,703 residential customers (B3) in brownfield developments was not included by ATCO in the NPV analysis required for rule 79(2)(b), as ATCO when requested must connect customers that are within 20 metres of an existing gas main as per its gas distribution licence.

1251. The ERA has reviewed ATCO's demand forecasts in this final decision. As set out above in paragraphs 168 to 123, the ERA has increased the customer connections to the network for the AA5 period. As a result, the ERA has increased the number of new connections for greenfield and brownfield developments for B3 customers in the NPV models. Greenfields residential B3 new connections increases by 2,131 to 63,592 connections and brownfields B3 new connections increases by 128 to 3,831.

1252. The ERA has made no adjustments to the B2 new connection numbers proposed by ATCO in its revised proposal.

***Capital connection costs***

1253. ATCO revisited the connection costs used in its NPV models. ATCO noted the capital expenditure forecast was calculated using three-year average costs for meter and service pipes, and feeders. ATCO tested those costs using a bottom-up approach and calculated a value of $[redacted]. Therefore, ATCO considered that the AA5 rate of $[redacted] per B3 greenfields connection was reasonable and comparable with $[redacted] per B3 greenfields connection in AA4.

1254. In its initial proposal NPV models, ATCO proposed a connection cost of $1,168 per B3 greenfields connection which the ERA adopted into its amended NPV models for the draft decision.

1255. The ERA has reviewed ATCO's connection costs assumptions and considers a three-year average of costs for meter and service pipes, and for feeders provides a reasonable estimate of connection costs for the AA5 period.

1256. However, the ERA has amended these values to remove ATCO's inflation and labour cost escalation, which values the ERA has not accepted. The ERA has used its determined labour cost escalation value of 0.54 per cent on the capital connection costs.

1257. The ERA considers that using ATCO's three-year average of costs and adjusting them for inflation and labour cost escalation provides an estimate that is arrived at on a reasonable basis and represents the best forecast or estimate possible in the circumstances as required by rule 74(2) of the NGR.

***Tariffs***

1258. In its initial proposal, ATCO used the AA5 proposed tariff values in its NPV models. The ERA amended these tariff values to be a calculation for each customer class of an extrapolated prevailing tariff value that resulted in the tariff revenue in 2019 equalling the cost of service in 2019 by using the 2019 tariff variation parameters.

1259. The ERA considered these values provided a fair and accurate evaluation of capital expenditure to occur under rule 79 of the NGR.

1260. ATCO adopted the ERA's draft decision tariff inputs in its revised NPV models. The ERA has also continued to use the 2019 cost-recovery tariff in its revised NPV models for the final decision.

***Discount rate***

1261. In the draft decision, as the ERA amended the tariffs used in the NPV models to a 2019 cost reflective tariff, the ERA also amended the WACC parameters, including

the discount rate, to be the values used in the 2019 tariff variation process in order to be consistent and comply with rule 79(4)(c) of the NGR.

1262. In its revised NPV models, ATCO adopted the ERA's 2019 cost reflective tariff values and so also adopted the inputs for the discount rate, being the WACC parameters, to be consistent and comply with the NGR.

1263. The ERA has maintained the 2019 tariff variation process WACC parameters in its revised NPV models for the final decision.

***Labour cost escalation***

1264. The ERA amended the labour cost escalation in ATCO's initial NPV models for the operating and capital expenditure costs. For operating expenditure, the ERA used a value of 1.25 per cent from 2020 until the end of the evaluation period in 2069.

1265. In its revised NPV models, ATCO used its AA5 period labour cost value of 1.47 per cent and then, from 2025 onwards, used the 1.25 per cent labour cost escalation in the modelling.

1266. The ERA has used its AA5 determined labour cost value of 0.55 per cent for the AA5 period in the NPV model and has maintained a 1.25 per cent labour cost escalation for the remaining evaluation period in the NPV model from 2025 to 2069.

1267. ATCO noted that, for AA5 capital expenditure, the labour escalation was already calculated and included within the capital cost estimate template. As the real 2019 capital expenditure forecasts in the AA5 NPV models already incorporated labour escalation, escalating them further for labour inflation in the conforming capital expenditure test (rule 79 of the NGR) would double-count the effect of wage price inflation. For reinvestment capital expenditure post-AA5, the ERA has applied a labour escalation of 1.25 per cent above Consumer Price Index inflation as it did in its draft decision.

1268. The ERA considers that ATCO's approach is correct in that applying labour escalation inside the NPV model to the AA5 capital expenditure would result in a double-count of escalation.

1269. The ERA's capital expenditure values in the NPV models use the 0.55 per cent labour escalation value and are not escalated again in the model to avoid the possibility of double-counting.

***Gas consumption***

1270. ATCO updated the forecast average consumption per customer in line with the amended gas demand forecast in required amendment 1 of the draft decision. ATCO noted that the volumes of new customers had slightly increased.

1271. ATCO also adopted the 0.5 per cent reduction for B2 and B3 customers from the ERA's draft decision as ATCO accepted that the average gas demand was unlikely to remain constant for 50 years. ATCO adopted a disconnection rate of 0.67 per cent for B2 customers and 0.37 per cent for B3 customers after 10 years of connection, based on the average disconnection rate over the last five years.

1272. The ERA has updated the gas consumption values in the NPV models to be consistent with its demand modelling as set out previously in this final decision

(paragraphs 92 to 208). The updated gas consumption numbers are higher than ATCO proposed in its NPV models.

***Incremental operating expenditure***

1273. In its initial NPV model for growth capital expenditure, ATCO calculated a flat incremental operating expenditure value across all tariff classes of $58.09.

1274. Through further review of the incremental operating expenditure calculation as part of its response to the draft decision, ATCO allocated the output growth costs across the tariff classes by referencing the allocation calculated for 2018.

1275. By applying the weighted annual real output growth rate to network and information technology costs, ATCO calculated different values for each customer class including an average incremental operating expenditure value of $26.50 for B3 customers.

1276. ATCO noted that this was significantly lower than the previous flat rate of $58.09 because growth in corporate costs was removed from the operating expenditure output growth calculation.

1277. ATCO noted that this method differed from its initial proposal where the output growth rate was also applied to corporate costs. This resulted in the average incremental operating expenditure value across all tariff classes falling from $58.09 to $39.36.

1278. In response to the draft decision, ATCO re-tested its high-level assumption that the incremental operating cost per customer for B2 and B3 customers was materially the same by assessing the incremental costs incurred in 2018 by tariff class. ATCO found that there were sufficient differences in the incremental costs to warrant further breaking down the average incremental operating expenditure by tariff class.

1279. To obtain the incremental cost values by tariff class, ATCO first calculated the incremental operating expenditure per connection based on 2018 actuals. This set the relativity of the incremental operating expenditure across the tariff classes.

1280. ATCO then calculated the incremental operating expenditure due to customer growth and mains growth in 2020 and allocated these totals into tariff classes using the 2018 estimated incremental cost weightings as a reference.

1281. Finally, ATCO calculated the incremental operating expenditure by tariff class. The cost for each tariff class was determined based on the average of the incremental operating expenditure for the five years in the AA5 period.

1282. This method resulted in the incremental operating expenditure per tariff class as set out in Table 118.

**Table 118: ATCO determined incremental operating expenditure per tariff class ($ million real as at 31 December 2019)**

| Tariff class | $ per new customer |
|---|---|
| A1 | 13,682.67 |
| A2 | 10,801.26 |
| B1 | 667.68 |
| B2 | 107.62 |
| B3 | 26.50 |

*Source:* ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Information)*, p. 169, Table 10.19.

1283. The ERA has reviewed ATCO's revised incremental operating expenditure calculations and associated explanatory documentation, including additional information requests from the ERA on ATCO's calculations.

1284. The ERA considers that, while ATCO's method has changed between its initial and revised proposal, ATCO has reverted to the method used in AA4 for growth NPV models and calculated the incremental operating expenditure by tariff class.

1285. The ERA agrees with ATCO's revised proposal to exclude corporate costs from its output growth operating expenditure calculations and only include network and information technology costs in that calculation. The ERA does not consider that corporate costs should increase in line with new connections.

1286. The ERA has reviewed ATCO's determination of the incremental operating expenditure per tariff class by using its 2018 actuals to set the relativity for the AA5 period. The ERA considers that the values have been determined reasonably and the ERA has therefore adopted these values in its revised determination of the NPV models for the final decision.

***NPV results for AA5 greenfields and brownfields growth expenditure***

1287. ATCO's revised NPV models for its greenfields and brownfields growth expenditure were both NPV-positive. Greenfields had an NPV of $32.7 million with a payback period of 20 years; and brownfields had an NPV of $2.4 million with a payback period of 13 years.

1288. As set out in the sections above (paragraphs 1249 to 1286), the ERA has made several amendments to ATCO's NPV calculations. Incorporating the ERA's changes into the models results in positive NPV results for both greenfield and brownfield growth capital expenditure in AA5 at a level greater than that proposed by ATCO.

1289. The ERA's models calculated an NPV of $37.6 million with a payback period of 19 years for greenfields; and an NPV of $2.5 million with a payback period of 13 years for brownfields.

***Summary of greenfields and brownfields growth expenditure***

1290. The ERA has reviewed ATCO's revised proposal for growth capital expenditure for greenfield and brownfield capital expenditure of $126.3 million, and $1.6 million of

related network reinforcement capital expenditure. The network reinforcement expenditure is required to enable the new greenfield and brownfield connections to occur.

1291. The ERA has considered the submissions received from interested parties on growth-related expenditure. AGL sought clarification on the ERA's draft decision not to allocate capital expenditure to greenfield and brownfield customer connections and considered that some provision should be made to ensure there was some continued growth of new connections.

1292. Kleenheat's submission queried ATCO's change in justification for residential brownfield new connections and the number of new connections expected to be within the 20-metre licence requirement.

1293. ATCO responded to Kleenheat's submission, noting that ATCO had incorrectly justified the residential brownfield expenditure in its initial submission under the incremental test. ATCO advised that this expenditure should have been justified as a regulatory obligation as was done in AA4, as its licence obligation had not changed.

1294. ATCO also noted that the capital expenditure forecast was for new residential connections within the 20 metre distance to a main and if a request came from a new connection greater than 20 metre from a main, ATCO would undertake an individual financial analysis on the mains extension and seek a capital contribution if required.

1295. The ERA accepts that ATCO is required to connect B3 residential customers as a condition of its licence. As a result, the expenditure is justified under rule 79(2)(c)(iii) of the NGR being necessary to comply with a regulatory obligation or requirement.

1296. The ERA also accepts that the NPV calculations for the B2 brownfield and B2 and B3 greenfield new connections are positive and can be accepted as being justified expenditure as required by rule 79(2)(b) of the NGR.

1297. Based on the ERA's assessment including its NPV analysis for the AA5 period, the ERA considers that the forecast $126.5 million of growth-related capital expenditure for greenfield and brownfield new connections and $1.6 million of related network reinforcement capital expenditure is conforming capital expenditure.

1298. The expenditure meets the requirements of rule 79(1)(a) of the NGR in that it is 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 providing services and can be included in the projected capital base.

1299. As noted at paragraphs 1091 to 1094, the ERA had adjusted the conforming amount for ERA's inflation forecasts and the ERA's approved labour escalator in accordance with rule 74 of the NGR.

***Other growth capital expenditure***

1300. In its initial proposal, ATCO proposed two growth-related meter projects: $10.7 million for customer initiated commercial metersets and $0.7 million for AL18 meters in AA5.

1301. In its draft decision, the ERA approved the expenditure for customer-initiated commercial metersets but only approved half of the expenditure for the AL18 meters due to ATCO providing insufficient information to justify the expenditure. With the ERA removing the greenfield and brownfield expenditure, the full expenditure was not supported.

1302. ATCO did accept the ERA's disallowance of half of the proposed expenditure for the connection of AL18 commercial meters. ATCO revised its proposal and proposed expenditure of $0.6 million for AL18 meters, forecasting [redacted] meters per year as opposed to [redacted] in its initial submission.

1303. In its revised proposal, ATCO has provided additional information on how it determined the forecast number of AL18 meters, including by moving from a 2-year average to a 3-year average as part of its forecast. ATCO also included information about how under its Asset Lifecycle Strategy, all commercial connections (which include AL18 meters), must pass an NPV analysis and if the connection does not pass an NPV test, a capital contribution from the customer is required.

1304. The ERA has reviewed ATCO's revised proposal including the updated volumes and unit costs. Taking into consideration the ERA's acceptance of the greenfields and brownfields growth expenditure (as noted at paragraphs 1290 to 1299 above), the ERA is satisfied that the proposed expenditure for AL18 meters in AA5 is expenditure that would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services, meeting the requirements of rule 79(1)(a) of the NGR.

1305. The expenditure is also justifiable under rule 79(2)(b) as each installation is assessed individually and only progressed if the NPV test is positive. If the NPV test is not positive, a capital contribution is required from customers by ATCO to progress the installation. As a result, the expenditure is considered conforming capital expenditure for inclusion in the projected capital base. As noted at paragraphs 1091 to 1094, the ERA had adjusted the conforming amount for ERA's inflation forecasts and the ERA's approved labour escalator in accordance with rule 74 of the NGR.

1306. In its initial proposal, ATCO proposed the following for growth development projects:

- $10.4 million for the expected cost to connect subdivisions far from the existing gas network offset by forecast capital contributions of $7.5 million.
- $1.3 million for meter upgrades to respond to customer-initiated requests.
- $2.8 million for customer-initiated sub-meter to master meter conversions.

1307. In its draft decision, the ERA accepted $1.3 million of proposed expenditure for meter upgrades but did not accept both the connection of subdivisions far from the existing gas network or the sub-meter to master meter conversions expenditure.

1308. The ERA maintains its draft decision position that ATCO's proposed expenditure for meter upgrades to respond to customer-initiated requests continues to meet the requirements of rules 79(1)(a) and 79(2)(b) of the NGR.

1309. In its revised submission, ATCO proposed to spend $10.7 million on growth development to connect far away subdivisions, offset by capital contributions of $7.5 million, with only the net capital expenditure of $3.2 million added to the projected capital base. ATCO's forecast was based on historical expenditure and capital contributions.

1310. ATCO submitted that this expenditure is conforming capital expenditure as it conforms with rule 79(1)(a) of the NGR and is justifiable under rule 79(2)(b) of the NGR.

1311. In its review of ATCO's revised proposal, EMCa noted that ATCO had provided updated information on the historical costs of its strategy to seek capital contributions

from respective land developers to ensure that each subdivision development was NPV positive.

1312. ATCO reported spending $5.4 million on growth development projects from 2015 to 2018. Over five years, this would be $6.85 million, at an average of $1.35 million per year. EMCa noted that ATCO's revised forecast of $3.2 million (net of the $7.5 million capital contribution) was less than half this amount. EMCa considered that this was consistent with the relatively weak state of Western Australia's economy and property market.

1313. EMCa noted that whether the growth development capital expenditure was likely to satisfy the capital expenditure criteria was dependent on the ERA's final decision regarding greenfields connection expenditure. Subject to the ERA's findings, EMCa considered that ATCO's approach and amended forecast capital expenditure of $10.7 million would comply with the capital expenditure criteria, based on its analysis of ATCO's revised submission.

1314. The ERA has reviewed ATCO's revised proposal and considers that, based on the information provided including historical average costs for this work and the ERA's determination to allow greenfields growth expenditure (as set out above in paragraphs 1244 to 1297), the proposed growth development expenditure to connect subdivisions that are far from the existing network is expenditure that would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services as required by rule 79(1)(a) of the NGR.

1315. The expenditure is also justifiable under rule 79(2)(b) of the NGR as it achieves a positive NPV and is therefore considered conforming capital expenditure for inclusion in the projected capital base. As noted at paragraphs 1091 to 1094, the ERA had adjusted the conforming amount for ERA's inflation forecasts and the ERA's approved labour escalator in accordance with rule 74 of the NGR.

1316. In the initial proposal, ATCO proposed $2.8 million for sub-meter to master meter conversions. ATCO revised its proposal to $[redacted] million to convert [redacted] sub-meters to master meters using the current cost of conversions.

1317. ATCO considered this expenditure is conforming capital expenditure as it conforms with rule 79(1)(a) of the NGR and is justifiable under rule 79(2)(b) of the NGR.

1318. ATCO submitted that while these installations are not ATCO's legal responsibility, the sub-meter to master-meter conversion project was identified in 2017 as a prudent intervention to address safety and reliability issues, protect the market from reticulated natural gas leaks and to do so in a manner that would avoid imposing additional costs on ATCO's customers. The project is an ongoing project from 2017 and ATCO plans to continue the process into AA5.

1319. ATCO advised that each conversion was individually assessed, ensuring that the most cost-effective solution was identified for each project. Each conversion project was individually tested under rule 79 of the NGR and where the NPV was not positive, a capital contribution was requested from the customer.

1320. In its review of ATCO's revised proposal, EMCa was satisfied that ATCO had responded adequately to the ERA's concerns and accordingly considered that the proposed capital expenditure was reasonable and prudent.

1321. The ERA notes the public submission from The Strata Community Association WA which supported the continuation of the sub-meter to master meter program due to the number of benefits to owners of strata properties.

1322. The ERA has reviewed the additional information provided by ATCO and its revised expenditure for the project. The ERA is satisfied that conversions are assessed appropriately before being undertaken and that where required a capital contribution is sought to ensure the project is NPV positive.

1323. The ERA therefore considers that the proposed expenditure for sub-meter to master meter conversions in AA5 is expenditure that would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services, as required by rule 79(1)(a) of the NGR.

1324. The expenditure is also justifiable under rule 79(2)(b) of the NGR as it achieves a positive NPV and is therefore considered conforming capital expenditure for inclusion in the projected capital base. As noted at paragraphs 1091 to 1094, the ERA had adjusted the conforming amount for ERA's inflation forecasts and the ERA's approved labour escalator in accordance with rule 74 of the NGR.

### *Information technology*

1325. ATCO submitted a revised forecast for information technology capital expenditure for AA5 of $35.9 million which was $0.2 million less than it proposed in its initial proposal and $9.1 million more than the ERA determined in the draft decision.

1326. ATCO's revised proposal for information technology capital expenditure in AA5 is made up of the following five programs:

- $2.9 million for customer engagement
- $0.8 million for network digitisation and intelligence
- $2.0 million for asset management and service delivery excellence
- $4.9 million for enterprise employee enablement
- $25.3 million for application renewal.

1327. ATCO maintained that the five IT programs of work were aligned with industry best practice and justified based on the primary drivers for each program. Also, ATCO submitted that the forecasts related to the IT programs of work had been arrived at on a reasonable basis and represented the best forecasts possible in the circumstances.

1328. ATCO considered that these were the best possible forecasts in the circumstances because of the process it followed, including revising its IT strategy, preparing project briefs, engaging with external service providers, assessing the end-of-life timing of existing systems, obtaining cost forecasts from Deloitte, benchmarking against its peers, and doing a thorough assessment of the deliverability of the programs.

1329. ATCO submitted that the forecasts were based on the best information it had available at the time of preparing its submission and were therefore consistent with rule 74 of the NGR. Also, ATCO submitted that, at more than five years out, it was difficult to conclusively demonstrate that the benefits exceeded the cost of future IT programs. ATCO submitted that all proposed expenditure in its AA5 IT program was,

and would continue to be, subject to rigorous evaluation through its governance process.

1330. ATCO submitted that its forecast expenditure was conforming capital expenditure and satisfied rule 79 of the NGR. Figure 15 below is ATCO's table of compliance with rule 79 of the NGR for its five proposed IT capital expenditure programs from its initial proposal.

**Figure 15 ATCO proposed information technology capital expenditure compliance with rule 79 of the NGR**

| NGR 79 | ENERGISED & RESPONSIVE CUSTOMER ENGAGEMENT | NETWORK DIGITISATION & INTELLIGENCE | ASSET MGT & SERVICE DELIVERY EXCELLENCE | ENTERPRISE &EMPLOYEE ENABLEMENT | APPLICATION RENEWAL |
|---|---|---|---|---|---|
| (2)(a) Economic value. | Yes | **Yes** | Yes | Yes | N/A |
| (2)(b) Incremental revenue vs present value of capex. | N/A | N/A | N/A | N/A | N/A |
| (2)(c)(i) Safety of services. | Yes | Yes | Yes | **Yes** | Yes |
| (2)(c)(ii) Integrity of services. | Yes | Yes | **Yes** | Yes | Yes |
| (2)(c)(iii) Regulatory obligation. | Yes | N/A | Yes | Yes | Yes |
| (2)(c)(iv) Meeting demand. | **Yes** | N/A | Yes | Yes | **Yes** |

*Source: ATCO, Access Arrangement Information, 31 August 2018, Table 12.13, p. 112.*

1331. In its initial proposal, ATCO's network digitisation and intelligence program of $1.3 million consisted of two projects: the 'historian' project ($[redacted] million) and the 'continuous improvements' project ($0.8 million).

1332. The ERA determined in its draft decision that the 'network digitisation and intelligence' programs were linked to ATCO's proposed SCADA expenditure and as that expenditure was determined to not be complying capital expenditure, the associated network digitisation and intelligence expenditure was also determined to be non-complying, and was excluded from the projected capital base.

1333. In its revised proposal, ATCO agreed that the 'historian' project ($[redacted] million) was linked with the network sustaining automated network pressure control expenditure, one of the programs within the proposed SCADA expenditure for AA5, and as a result, ATCO transferred this expenditure out of the IT forecast and placed it within the SCADA program.

1334. ATCO maintained from its initial proposal that the 'continuous improvements' project of $0.8 million was not linked to the SCADA expenditure and, with the additional information provided for its IT programs in the revised proposal, was therefore justified under rule 79 of the NGR.

1335. In the draft decision, after excluding the 'network digitisation and intelligence' capital expenditure, the ERA considered that from the information provided, ATCO's proposed AA5 IT expenditure, did not meet the criteria under rule 79(1) of the NGR, and the ERA made a 20 per cent across-the-board reduction to the IT expenditure.

1336. ATCO did not accept the ERA's draft decision of a 20 per cent reduction to IT expenditure. As set out above (see paragraphs 1327 to 1330), ATCO considered

that its forecast had been arrived at on a reasonable basis and represented the best forecast possible in the circumstances.

1337. ATCO stated that the proposed 20 per cent reduction would result in its IT assets not being maintained in accordance with industry best practice and an increased risk of loss of data, unauthorised access to network, employee and customer data and loss of data integrity.

1338. In its revised proposal, ATCO, included an additional $[redacted] million in its application renewal program for the planning and scoping phase of its enterprise resource planning system as a result of a revision in its accounting treatment of this expenditure

1339. EMCa reviewed ATCO's revised proposal. EMCa noted that, for the 'network digitisation and intelligence' program, ATCO removed the 'Historian' project and included that as part of its SCADA expenditure. EMCa revisited ATCO's initial proposal information and the revised proposal information for the 'continuous improvement' project, and was satisfied that it was likely that enhancements to the five nominated software applications would be required during AA5.

1340. ATCO responded to the ERA's draft decision by submitting that its forecast was reasonable, and included new and clarifying information in its revised proposal. This new information included, as mentioned above (at paragraph 1328), using Deloitte's cost forecasting tools, benchmarking ATCO's costs against its peers and information on ATCO's delivery capability, which stated that ATCO had delivered or plans to deliver in the AA4 period, 124 projects with a variance of only 4.5 per cent.

1341. EMCa expected ATCO to provide updated versions of its business cases to address concerns with the quality of justification expressed in EMCa's final technical report,[383] but ATCO did not do this in its revised proposal.

1342. However, EMCa was satisfied that the proposed IT capital expenditure for AA5 of $34.7 million was reasonable, based on the information ATCO provided, including the description of the combination of bottom-up and top-down forecasting methods applied to the IT capital expenditure forecast.

1343. EMCa considered that ATCO's additional inclusion of capitalising the planning and scoping expenditure of the enterprise resource planning upgrade project was common practice in projects that had proceeded or were very likely to proceed and so this complied with the NGR capital expenditure criteria.

1344. The ERA has reviewed ATCO's revised proposal and the additional information it has provided in response to the draft decision. The ERA notes EMCa's report on ATCO's proposed expenditure and that EMCa had expected to see revised business cases. However, the ERA considers that ATCO's additional information on bottom-up and top-down methods and Deloitte's consultant cost report and KPMG's benchmarking report provide enough information for the ERA to make its determination of the AA5 proposed expenditure.

1345. ATCO acknowledged in its revised proposal that while the five IT program business cases proposed were not processed through ATCO's full capital expenditure governance process, as outlined in the IT asset strategy document, all projects

[383] Energy Market Consulting Associates, *Review of Technical Aspects of the Proposed Access Arrangement,* March 2019, paragraph 439.

initiated within the IT program of works were governed by ATCO's IT governance model.

1346. This governance model includes the following mandatory review and stage gates for IT projects:

- Formal approval by the Investment Governance Committee of all business cases.
- Progress reviews by the IT Steering Committee (minimum monthly).
- Business case reviews to ensure the business benefits are still attainable by the business case owner and the IT Working Committee at each project stage gate.

1347. In addition to the extra information on the governance of its IT program or works, ATCO noted that as projects were initiated, a project business case was developed that included necessary information to demonstrate prudent expenditure and compliance with the NGR to secure capital expenditure approval from ATCO's Investment Governance Committee.

1348. This included considering options, such as extending existing software solutions, implementing new software solutions, or delaying the project based on the maturity of the solutions available within the market.

1349. On the ability of ATCO to deliver on its AA5 IT program of works, ATCO noted that while available technologies would continue to evolve rapidly during AA5, it had the necessary plans and governance processes in place to deliver the projects.

1350. ATCO noted that it had demonstrated its ability to deliver IT projects through previous access arrangements, most notably in AA4 with the delivery of its program of work with a variance of 4.5 per cent including upgrades to the following business critical applications:

- SAP
- SharePoint
- Microsoft operating environment
- integration platform (webMethods).

1351. ATCO also had its planned IT expenditure analysed through an independent benchmarking study conducted by KPMG in which it compared the IT expenditure to nine benchmarks over a period of 16 years (covering AA3, AA4 and AA5).

1352. The KPMG study noted that "ATCO Gas's IT Totex, Capex and Opex per customer benchmark results are consistently below the industry mean and, in many cases, benchmarked close to or at the industry minimum. The results suggest ATCO Gas's IT expenditure is efficient, when compared to the Australian Utilities industry." Also, the study noted that "ATCO is forecasting further IT expenditure increases in AA5. Despite this, the IT expenditure is expected to remain lower than benchmarked industry."[384]

1353. ATCO in its revised proposal provided a substantial amount of additional information on its IT program of works for the AA5 period in response to the ERA's draft decision.

[384] KPMG, ATCO Gas Mid-West and South-West Gas Distribution Systems IT Expenditure Benchmarking, May 2018, p. 7.

This additional information provided the ERA with a greater understanding of ATCO's proposed IT expenditure including the cost of the project, the governance processes followed and the processes still to be undertaken to ensure the expenditure was monitored regularly for reasonableness.

1354. As noted at paragraph 1344, the ERA considers that the additional documentation from ATCO, the cost modelling from its consultant Deloitte and the benchmarking study conducted by KPMG, provide the support required to approve ATCO's AA5 proposed IT capital expenditure.

1355. The ERA considers that the revised proposed expenditure by ATCO for its five IT programs is expenditure that would be incurred by a prudent service provider acting efficiently in accordance with accepted good industry practice to achieve the lowest sustainable cost of providing services, as required by rule 79(1)(a) of the NGR.

1356. The ERA also considers that the proposed IT capital expenditure is justified under several sections of rule 79(2) of the NGR based on the IT program. Specifically, the ERA considers that each of the IT programs is justified based on its primary justification under rule 79(2) of the NGR as proposed by ATCO.

- Customer engagement – 79(2)(c)(iv) of the NGR;
- Network digitisation and intelligence – 79(2)(a) of the NGR;
- Asset management and service delivery excellence – 79(2)(c)(ii) of the NGR;
- Enterprise and employee enablement – 79(2)(c)(i) of the NGR;
- Application renewal – 79(2)(c)(iv) of the NGR.

1357. As a result, the proposed expenditure is conforming capital expenditure and is to be included in projected the capital base. As noted at paragraphs 1091 to 1094, the ERA had adjusted the conforming amount for ERA's inflation forecasts and the ERA's approved labour escalator in accordance with rule 74 of the NGR.

### *Structures and equipment capital expenditure*

1358. ATCO submitted a revised forecast for structures and equipment capital expenditure for AA5 of $23.5 million, which was $0.7 million more than in its original proposal and $2.3 million more than the ERA's draft decision.

1359. ATCO's revised proposal for structures and equipment capital expenditure in AA5 was split between the following categories:

- $16.0 million for fleet
- $2.8 million for structures
- $4.7 million for property, plant and equipment.

1360. Consistent with its initial proposal, ATCO considered its proposed structures and equipment is conforming capital expenditure as it satisfies rule 79(1)(a) and rule 79(2)(c)(ii) of the NGR. ATCO submitted that the capital expenditure is necessary to maintain and improve the safety of services and maintain the integrity of services. ATCO noted this is achieved by ensuring the tools and equipment used by its field staff to undertake their duties remain fit for purpose, fully operational and are in a good condition.

1361. In its draft decision, the ERA determined that $1.6 million of fleet expenditure did not satisfy the requirements of rule 79 of the NGR to be considered conforming capital

expenditure. This was due to the expenditure being for growth of the network for greenfield and brownfield connections, which was also not approved in the draft decision.

1362. In its revised proposal, ATCO partially reduced its proposed AA5 fleet expenditure by $0.3 million. This reduction, however, was for a revision to ATCO's leak survey program, which reduced the number of light vehicles required.

1363. ATCO submitted that it still required the same number of vehicles to accommodate its network growth for greenfields and brownfields connections as set out in its initial proposal.

1364. EMCa noted that it was unable to reconcile ATCO's statements about provisions for extra leak survey light commercial vehicles or for the proposed network pressure control project with ATCO's fleet Asset Lifecycle Strategy, which made no mention of these projects to justify the increase.

1365. EMCa also noted that, despite this, the reduction in forecast new vehicles resulting from ATCO's review of its program of network activities was consistent with the forecasting methodology described in ATCO's fleet Asset Lifecycle Strategy.

1366. The ERA has reviewed ATCO's revised proposed information and original proposal documentation to assess the proposed expenditure for fleet. As the ERA has accepted ATCO's proposed greenfields and brownfields growth expenditure, the ERA is satisfied that ATCO would require additional vehicles to complete the growth of the network and then adequately monitor and maintain it into the future.

1367. The ERA considers that the revised proposed fleet expenditure proposed by ATCO is prudent and efficient expenditure in accordance with accepted good industry practice to achieve the lowest sustainable cost of providing services and in accordance with rule 79(1)(a) of the NGR for inclusion in projected the capital base. The expenditure is also justifiable under rule 79(2)(c)(ii) of the NGR as it is required to maintain the integrity of services.

1368. ATCO included an additional $[redacted] million in its revised proposal on top of the $[redacted] million as a carry-over from AA4 to complete work at the new Osborne Park/Balcatta depot building. ATCO noted that the delay was due to limited availability of suitable industrial properties in the Osborne Park, Balcatta and Malaga areas but it had now reached an agreement with a developer on the land sale contract.

1369. The ERA notes that, in its initial proposal, ATCO included a carry-over of $[redacted] million for this depot project, which the ERA accepted in its draft decision. The ERA has reviewed the information provided and, because of the delay securing the appropriate site to construct the depot, is satisfied with the $[redacted] million increase in the carry-over taking the total carry-over for the depot project to $[redacted] million for the AA5 period.

1370. The ERA considers that ATCO's revised proposed expenditure for structures and equipment is expenditure that would be incurred by a prudent service provider acting efficiently in accordance with accepted good industry practice to achieve the lowest sustainable cost of providing services, as required by rule 79(1)(a) of the NGR.

1371. The expenditure is justified under rule 79(2)(c)(ii) of the NGR to maintain the integrity of services. As a result, the proposed expenditure is conforming capital expenditure to be included in projected the capital base. As noted at paragraphs 1091 to 1094,

the ERA had adjusted the conforming amount for ERA's inflation forecasts and the ERA's approved labour escalator in accordance with rule 74 of the NGR.

***Equity raising costs***

1372. Equity raising costs reflect the direct transaction costs of raising equity. Equity is assumed to be raised to fund a capital investment program and is used to maintain the benchmark gearing assumption adopted.

1373. In its draft decision, the ERA provided an allowance for equity raising costs in the capital expenditure building block. Equity raising costs are capitalised and incorporated into capital expenditure allowances, which are then recovered over time. Equity raising costs do not form part of the rate of return.

1374. ATCO proposed to continue the equity raising cost method adopted in AA4, should it need to calculate equity raising costs in the future. This method estimates equity raising costs based on the following assumptions:[385]

- Retained earnings of 30 per cent of after-tax profits will be available to increase equity at zero cost.
- Dividends will be assumed to be paid at the benchmark payout ratio of 70 per cent of after-tax profits.
- 25 per cent of dividends paid out will be treated as being reinvested through dividend reinvestment plans, with an equity raising cost allowance of 1 per cent.
- Any further required equity is raised at the seasoned equity offering cost of 3 per cent.

1375. ATCO proposed that equity raising costs were capitalised into the regulatory asset base and recovered over 53 years (based on the weighted average economic life of the regulatory asset base as at 1 January 2020).[386] Depreciating the equity raising costs based on the weighted average economic life of the regulatory asset base is the same method used during AA4. The ERA considers this a reasonable basis to recover the equity raising costs as the calculation of equity raising costs is not tied to funding one asset category over another.

1376. To determine whether equity funding is required, the formula below is used. If the equity required is less than zero then equity raising is not required.

Equity Required = capital expenditure - debt component of the capital expenditure - (retained cash flow – dividend payout + dividend reinvestment)

1377. The equity raising cost is the sum of external equity raising cost and dividend reinvestment cost. When equity raising costs are greater than zero they are capitalised, otherwise the equity raising cost is zero.

1378. ATCO calculated that no equity would need to be raised and therefore no equity raising costs will be required over AA5.[387]

[385] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 184.

[386] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 184.

[387] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 136.

1379. The ERA supports the continuation of the equity raising cost method adopted in AA4.

1380. The ERA confirmed that equity required is less than zero and therefore equity raising costs are zero.

1381. As ATCO has not changed its position from its initial proposal, the ERA maintains its draft decision position and supports the continuation of the equity raising cost method adopted for AA4 being applied in AA5.

### *Projected capital base*

1382. Following the assessment of ATCO's revised proposed conforming AA5 capital expenditure, the ERA has determined that:

- $410.19 million (93.86 per cent of ATCO's revised proposed expenditure) complies with the criteria set out in rule 79 of the NGR for conforming capital expenditure and can be included in the projected capital base for AA5.
- $26.85 million (6.14 per cent of ATCO's revised proposed expenditure) does not comply with the criteria set out in rule 79 of the NGR for conforming capital expenditure and should not be included in the projected capital base for AA5.

1383. The ERA has determined that $410.19 million of ATCO's capital expenditure in AA5 is conforming capital expenditure:

- $206.22 million for network sustaining capital expenditure
- $145.82 million for network growth capital expenditure
- $34.82 million for IT capital expenditure
- $23.33 million for structures and equipment capital expenditure.

1384. Table 119 shows the ERA's amended conforming capital expenditure for AA5 by project driver.

**Table 119: ERA's amended conforming capital expenditure by AA5 project driver ($ million real as at 31 December 2019)**

| | 2020 | 2021 | 2022 | 2023 | 2024 | Total |
|---|---|---|---|---|---|---|
| Network sustaining | 49.50 | 39.76 | 40.31 | 39.24 | 37.40 | 206.22 |
| Network growth | 24.28 | 27.73 | 30.41 | 31.43 | 31.96 | 145.82 |
| Information technology | 7.27 | 8.50 | 6.64 | 4.93 | 7.49 | 34.82 |
| Structures and equipment | 6.08 | 5.91 | 3.13 | 4.04 | 4.18 | 23.33 |
| Equity raising costs | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **ERA amended conforming capital expenditure by project driver** | **87.13** | **81.89** | **80.49** | **79.64** | **81.04** | **410.19** |

*Source: ERA, Final Decision Appendix 5, GDS Tariff Model, November 2019.* Some numbers may not add due to rounding.

1385. Table 120 breaks down the ERA's amended conforming capital expenditure for AA5 by asset class.

**Table 120: ERA's amended conforming capital expenditure by AA5 asset class ($ million real as at 31 December 2019)**

| Asset class | 2020 | 2021 | 2022 | 2023 | 2024 | Total |
|---|---|---|---|---|---|---|
| High pressure mains – steel | 2.70 | 2.78 | 4.22 | 2.62 | 0.54 | **12.87** |
| High pressure mains – polyethylene (PE) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | **0.00** |
| Medium and low-pressure mains | 40.69 | 33.23 | 33.12 | 34.04 | 34.54 | **175.62** |
| Regulators | 1.07 | 0.75 | 0.96 | 0.70 | 0.38 | **3.86** |
| Secondary gate stations | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | **0.34** |
| Buildings | 1.90 | 0.35 | 0.30 | 0.10 | 0.10 | **2.76** |
| Meter and services pipes | 28.05 | 28.68 | 30.91 | 31.82 | 32.33 | **151.80** |
| Equipment and vehicles | 0.79 | 0.79 | 0.87 | 0.88 | 0.88 | **4.20** |
| Vehicles | 3.31 | 4.68 | 1.87 | 2.97 | 3.11 | **15.93** |
| Information Technology | 7.35 | 8.58 | 6.72 | 5.02 | 7.59 | **35.27** |
| Telemetry | 1.19 | 1.98 | 1.44 | 1.43 | 1.49 | **7.54** |
| Land | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | **0.00** |
| Equity raising costs | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | **0.00** |
| **ERA amended conforming capital expenditure by asset class** | **87.13** | **81.89** | **80.49** | **79.64** | **81.04** | **410.19** |

*Source: ERA, Final Decision Appendix 5, GDS Tariff Model, November 2019.* Some numbers may not add due to rounding.

1386. Table 121 shows the ERA's amended values for calculating the projected capital base for AA5.

1387. The straight line method is the depreciation method used for calculating the depreciation on ATCO's regulatory asset base for AA5. The current cost accounting approach is consistent with the criteria under rule 89(1) of the NGR and complies with the NGL (see the depreciation chapter of this final decision at paragraphs 1466 to 1488).

**Table 121: ERA's amended projected capital base for the AA5 ($ million real as at 31 December 2019)**

| | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Opening capital base | 1,292.38 | 1,333.39 | 1,359.95 | 1,383.64 | 1,405.26 |
| Plus: Capital expenditure | 87.13 | 81.89 | 80.49 | 79.64 | 81.04 |
| Less: Depreciation | 46.12 | 55.33 | 56.80 | 58.02 | 60.35 |
| Less: Asset disposals | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Closing capital base** | **1,333.39** | **1,359.95** | **1,383.64** | **1,405.26** | **1,425.95** |

*Source: ERA, Final Decision Appendix 5, GDS Tariff Model, November 2019.* Some numbers may not add due to rounding.

1388. Table 122 shows the ERA's amended values for calculating the projected capital base for AA5 in nominal dollars.

**Table 122: ERA's amended projected capital base for AA5 ($ million nominal)**

| | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Opening capital base (start of period) | 1,292.38 | 1,348.59 | 1,391.13 | 1,431.50 | 1,470.44 |
| Inflation | 14.73 | 15.37 | 15.86 | 16.32 | 16.76 |
| Opening capital base (end of period) | 1,307.11 | 1,363.96 | 1,406.99 | 1,447.82 | 1,487.21 |
| Plus: Capital expenditure | 88.13 | 83.77 | 83.27 | 83.33 | 85.76 |
| Less: Depreciation | 46.65 | 56.59 | 58.76 | 60.71 | 63.87 |
| Less: Asset disposals | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Closing capital base** | **1,348.59** | **1,391.13** | **1,431.50** | **1,470.44** | **1,509.11** |

*Source: ERA, Final Decision Appendix 5, GDS Tariff Model, November 2019.* Some numbers may not add due to rounding.

**Required Amendment 7**

The projected capital base (nominal) must be amended to reflect the values set out in Table 122 of this final decision.

# Return on the regulatory capital base

## Rate of return guidelines

1389. The rate of return, based on the Weighted Average Cost of Capital (WACC), provides for a return on the regulatory asset base. Rule 87 of the NGR requires the ERA to make and publish rate of return guidelines. Rule 87(14) of the NGR provides that the guidelines must set out:

- The methods that the ERA proposes to use to estimate the allowed rate of return.
- The estimation methods, financial models, market data and other evidence the ERA proposes to take into account to estimate the return on equity, return on debt and value of imputation credits referred to in rule 87A.

1390. The ERA was required to complete a review of the 2013 rate of return guidelines by December 2018. Draft updated guidelines and a draft explanatory statement were published on 29 June 2018 for public comment. The ERA considered the submissions received before making and publishing final updated guidelines in December 2018. ATCO provided submissions throughout the review.

1391. This review allowed the ERA to assess its approach to setting the rate of return for covered gas pipeline access arrangements.

1392. Where relevant, as a means of illustration, the ERA set out current indicative estimates of the rate of return and associated parameters in the guidelines. 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.

1393. Further information about the rate of return guidelines and relevant documents can be found on the ERA website.[388]

### *Application of the guidelines*

1394. The Council of Australian Governments' Energy Council developed a framework for binding rate of return guidelines.[389] New rate of return rules were gazetted in the South Australian government gazette in November 2018 and in April 2019 the rate of return guidelines became a binding instrument in Western Australia.[390] The ERA and service providers may no longer depart from the guidelines when reviewing an access arrangement.

## ATCO's initial proposal

1395. ATCO's access arrangement proposal was submitted in September 2018, prior to the release of the ERA's final gas rate of return guidelines. At the time of its submission, ATCO acknowledged that the rate of return guidelines were to become binding:[391]

[388] ERA, Gas Rate of Return Guidelines (online) (accessed September 2019).

[389] COAG Energy Council, *Binding Rate of Return Guideline*, October 2017 (online) (accessed September 2019).

[390] *National Gas Access (WA) (Act Amendment) Regulations 2019*, Western Australian Government Gazette No. 43, 5 April 2019, pp. 1009-1010.

[391] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 126.

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.

1396. ATCO's proposed estimate of the rate of return was 6.03 per cent (vanilla nominal after-tax) and was based on the methods and values in the ERA's draft rate of return guidelines (with some exceptions) and market data to the end of 29 March 2018. Table 123 details the individual rate of return components estimated by ATCO for AA5 compared to the existing rate of return components for AA4.

**Table 123: ATCO's rate of return estimate**

| Component | AA4 actual* | AA5 proposed |
|---|---|---|
| **Return on debt (%)** | | |
| 5-year interest rate swap (effective yield) | 2.430 | 2.590 |
| Debt risk premium (10-year average) | 2.605 | 2.267 |
| Debt issuing cost + hedging | 0.24 | 0.214 |
| *Nominal return on debt* | *5.275* | *5.07* |
| **Return on equity** | | |
| Nominal risk free rate (%) | 1.96 | 2.37 |
| Market risk premium (%) | 7.50 | 6.90 |
| Equity beta | 0.7 | 0.7 |
| *Nominal return on equity (%)* | *7.21* | *7.20* |
| **Other parameters** | | |
| Debt proportion (%) | 60 | 55 |
| Inflation rate (%) | 1.90 | 1.84 |
| Corporate tax rate (%) | 30 | 30 |
| Franking credit | 0.25 | 0.34 |
| **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.*

1397. While ATCO used the draft rate of return guidelines to determine the rate of return for AA5, ATCO did not accept the ERA's draft rate of return guidelines for the following components:

- Debt risk premium – ATCO considered that the guidelines needed to be modified to include sufficient detail to allow for a mechanical calculation.

- Market risk premium – ATCO did not accept the draft guidelines and submitted 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 did not accept the draft guidelines and supported the adoption of the Australian Taxation Office's tax statistics as the best and most direct estimate of gamma.

1398. ATCO expected to adopt the ERA's updated rate of return guidelines to determine the rate of return for AA5 once it was finalised in 2018.

## *Draft decision*

1399. To determine the 2018 rate of return guidelines, the ERA considered all available information including ATCO's AA5 proposal, ATCO's submissions throughout the review process, other public submissions and expert reports. These considerations are outlined in the ERA's rate of return guidelines explanatory statement.[392]

1400. In April 2019, the 2018 rate of return guidelines became a binding instrument in Western Australia.[393]

1401. The ERA's draft decision was consistent with the binding gas rate of return guidelines.

***Overall rate of return approach***

1402. The rate of return, based on a WACC, provides a service provider with a return on the capital it has invested in its business.

1403. The NGR require the ERA to adopt a nominal vanilla WACC to develop the rate of return for the benchmark efficient entity.[394] A vanilla WACC does not include any adjustment for tax effects, such as the effect of imputation credits on the rate of return. The effect of tax on the returns must be accounted for separately, as an explicit deduction from the relevant cash flows. A vanilla WACC is therefore a post-tax framework.

1404. In the draft decision, the ERA stated that it would adopt a WACC for a benchmark efficient entity in its simplest 'vanilla' form, expressed as:

$$WACC_{vanilla} = E(r_e)\frac{E}{V} + E(r_d)\frac{D}{V}$$

where:

$E(r_e)$ is the expected return on equity

[392] ERA, *Final Gas Rate of Return Guidelines Explanatory Statement*, 18 December 2018.

[393] *National Gas Access (WA) (Act Amendment) Regulations 2019*, Western Australian Government Gazette, No. 43, 5 April 2019, pp. 1009-1010.

[394] NGR 87(4).

$E(r_d)$ is the expected return on debt

$E/V$ is the proportion of equity in total financing (comprising equity and debt)

$D/V$ is the proportion of debt in total financing.

***Return on debt approach***

1405. The estimate of the return on debt is based on a risk premium over and above the risk free rate, combined with an additional margin for administrative costs:

Return on debt = risk free rate + debt risk premium + debt raising costs + hedging costs

***Risk free rate (debt)***

1406. The risk free rate is the return an investor would expect when investing in an asset with no risk.

1407. The interbank rate can represent a risk free rate for the purposes of debt financing. Though interbank lending has a cost above that of Commonwealth Government Securities used to calculate the cost of equity, the use of the interbank rate is equivalent to using a Government Security and separately adjusting the debt risk premium. For the purposes of determining the cost of debt, the use of the interbank rate is more convenient for businesses and regulators. The ERA therefore considered the five-year bank bill swap rate as a proxy for the risk free rate when calculating the cost of debt.

1408. The ERA used the 20-day averaging period to 30 November 2018 as a placeholder and noted that the final decision would be updated for ATCO's final averaging period.

1409. For the draft decision, the ERA estimated a risk free rate for the cost of debt of 2.537 per cent for the 20-day averaging period to 30 November 2018.

***Debt risk premium***

1410. The debt risk premium is the return above the risk free rate that lenders require to compensate them for the risk of providing debt funding to a benchmark business. The debt risk premium compensates holders of debt securities for the possibility of default by the issuer.

1411. The ERA's approach to estimating the debt risk premium involved the following steps:

- Step 1: Determining the benchmark sample – identifying a sample of relevant corporate bonds that reflect the credit rating of the benchmark efficient entity.
- Step 2: Collecting data and converting yields to Australian dollar equivalents – converting the bond yields from the sample into hedged Australian dollar equivalent yields inclusive of Australian swap rates.
- Step 3: Averaging yields over the averaging period – calculating an average Australian dollar equivalent bond yield for each bond across the averaging period.

- Step 4: Estimating curves – estimating yield curves on this data by applying the Gaussian Kernel, Nelson-Siegel and Nelson-Siegel-Svensson techniques.
- Step 5: Estimating cost of debt – calculating the simple average of their three yield curves' 10-year cost of debt to arrive at a market estimate of the 10-year cost of debt.
- Step 6: Calculating the debt risk premium – calculating the debt risk premium by subtracting the 10-year interest rate swap rate from the 10-year cost of debt.

1412. These steps determined the debt risk premium at a point in time, being the date of calculation. The ERA referred to this method as the revised bond yield approach. This approach uses international and domestic BBB+ bonds – identified by Bloomberg as having Australia as their country of risk – to estimate the cost of debt each year.

1413. To determine the debt risk premium used to calculate the rate of return, the ERA constructed a 10-year trailing average debt risk premium, consisting of a debt risk premium for the current year and a debt risk premium for each of the nine prior years.

1414. The 10-year trailing average debt risk premium is updated each year. The detailed process for determining the debt risk premium is provided in the 2018 gas rate of return guidelines explanatory statement.[395]

1415. Table 124 details the ERA's estimated trailing average debt risk premium for the draft decision (being 2.254 per cent). Historic annual debt risk premium estimates were unchanged. The current year was updated for the 20-day averaging period to 30 November 2018, as a placeholder.

**Table 124: ERA's draft decision estimated trailing average debt risk premium for AA5**

| Year | Debt risk premium (%) |
|---|---|
| 2011 | 2.371 |
| 2012 | 3.172 |
| 2013 | 3.068 |
| 2014 | 2.250 |
| 2015 | 1.953 |
| 2016 | 2.467 |
| 2017 | 2.326 |
| 2018 | 1.689 |
| 2019 | 1.663 |
| 2020 | 1.577 |
| **Trailing average debt risk premium** | **2.254** |

* *Debt risk premium estimate for 20-day averaging period to 30 November 2018, as a placeholder.*

[395] ERA, *Final Gas Rate of Return Guidelines Explanatory Statement*, 18 December 2018, Chapter 10.

***Debt raising and hedging costs***

1416. Debt raising costs and hedging costs are the administrative costs and other charges incurred by businesses when obtaining and hedging finance.

1417. The ERA provided for the recovery of direct debt financing costs and considered that an allowance of 0.100 per cent for debt raising costs was appropriate.

1418. The ERA also provided for the recovery of an annual swap allowance of 0.114 per cent to compensate for the cost of conducting hedging for exposure to movements in the risk free rate.

***Return on equity approach***

1419. The return on equity is the return that investors require from a firm to compensate them for the risk they take by investing their capital.

1420. There are no readily observable proxies for the expected return on equity. While estimates of the cost of debt can be obtained by observing debt instruments, financial markets do not provide a directly observable proxy for the cost of equity, for either individual firms or for the market as a whole.

1421. Estimating a forward-looking return on equity that is sufficient to enable regulated firms to recoup their prevailing equity financing costs requires the use of models. Generally, these models seek to explain the required return on equity through a relationship with some portfolio of risk factors, or else in terms of the present value of the expected stream of future cash flows. The model most used by Australian regulators for quantifying the return on equity and associated risk has been the Sharpe Lintner Capital Asset Pricing Model (CAPM).

1422. The ERA stated that it would determine a single point estimate for the return on equity using the Sharpe Lintner CAPM:

$$R_i = R_f + \beta_i \left( R_m - R_f \right)$$

where:

$R_i$ is the required rate of return on equity for the asset, firm or industry in question

$R_f$ is the risk free rate

$\beta_i$ is the equity beta that describes how a particular portfolio $i$ will follow the market which is defined as $\beta_i = \text{cov}\left(R_i, R_m\right) / \text{var}\left(R_m\right)$

$\left( R_m - R_f \right)$ is the market risk premium.

***Risk free rate (equity)***

1423. The ERA stated that it would use observed yields from five-year Commonwealth Government Security bonds to estimate the risk free rate of return for the purpose of estimating the return on equity.

1424. For the draft decision the ERA estimated a risk free rate for the cost of equity of 2.34 per cent for the 20-day averaging period to 30 November 2018.

***Market risk premium***

1425. The market risk premium is the expected rate of return over and above the risk free rate that investors require to invest in a fully-diversified portfolio.

1426. The market risk premium compensates an investor for the systematic risk of investing in a fully diversified portfolio. Systematic risk is risk that cannot be diversified away by investors because it affects all firms in the market.[396] Therefore, the market risk premium represents an investor's required expected return, over and above the risk free rate of return, on a fully diversified portfolio of assets. This is a forward-looking concept.

1427. Consistent with the 2018 gas rate of return guidelines, the ERA determined a market risk premium of 6 per cent.

***Equity beta***

1428. Equity beta is the 'slope' parameter $\beta_i$ in the Sharpe Lintner CAPM. The slope parameter $\beta_i$ correlates the return on the specific asset, in excess of the risk free rate of return, to the rise and fall of the return on the market portfolio.

1429. The equity beta is a parameter that measures the systematic risk of a security or a portfolio in comparison to the market.

1430. Consistent with the 2018 gas rate of return guidelines, the ERA determined an equity beta of 0.7.

***Gearing***

1431. Gearing is the proportion of a business's assets assumed to be financed by debt and equity. Gearing is defined as the ratio of the value of debt to total capital (that is, including debt and equity) and so is generally expressed as follows:

$$Gearing = \frac{Debt}{Debt + Equity}$$

1432. This ratio is used to weight the costs of debt and equity when the regulated WACC is determined. Under the NGR, the allowed rate of return for a regulatory year should be a weighted average of the return on equity for the access arrangement period in which that year occurs and the return on debt for that year.[397]

1433. Consistent with the 2018 gas rate of return guidelines, the ERA determined a gearing of 55 per cent.

[396] The foundation of the Sharpe Lintner CAPM is the proposition that adding an asset to a portfolio reduces risk via the diversification effect but not beyond the risks that the assets in a portfolio share in common, that is, their systematic risk. At the limit, when one has invested in all available assets in the market portfolio, there is only systematic risk left. An important assumption of the CAPM is that assets are priced as though it is only their systematic risk that is relevant to investors.

[397] NGR 87(4).

### *Inflation*

1434. Inflation is the rate of change in the general level of prices of goods and services. Forecast inflation can be used to translate the nominal post-tax WACC to a real post-tax WACC.

1435. A nominal rate of return incorporates the real rate of return, compounded with a rate that reflects expectations of inflation. In line with the requirements of the NGR, the ERA used a nominal vanilla rate of return for its draft decision.[398]

1436. The ERA stated that it would estimate the expected inflation rate using the Treasury bond implied inflation approach. This approach uses the Fisher equation[399] and the observed yields of:

- Five-year Commonwealth Government Securities, which reflect a market-based estimate of the nominal risk free rate.
- Five-year indexed Treasury bonds, which reflect a market-based estimate of a real risk free rate.

1437. The ERA further stated that it would estimate the expected inflation rate consistent with the estimate of the risk free rate by adopting an averaging period of 20 trading days. This approach uses linear interpolation to derive the daily point estimates of both the nominal five-year risk free rate and the real five-year risk free rate for use in the Fisher equation.[400] The term of the resulting average expected inflation rate is five years, consistent with the length of the access arrangement period.

1438. For the draft decision the ERA estimated a forecast inflation of 1.71 per cent as at the 20-day averaging period to 30 November 2018.

### *Value of imputation credits (gamma)*

1439. The NGR require the ERA to set out its approach to estimating the value of imputation credits (gamma), a parameter in the post-tax revenue model.

1440. The imputation tax system prevents corporate profits from being taxed twice. Prior to the introduction of imputation on 1 July 1987, company profits were taxed once at the corporate level and again at the dividend recipient level (for example, as personal income tax). Under the Australian imputation tax system, franking credits are distributed to investors at the time dividends are paid and provide an offset to those investors' taxation liabilities.

1441. The gamma parameter accounts for the reduction in the effective corporate taxation that is generated by the distribution of franking credits to investors. Generally, investors who are able to use franking credits will accept a lower required rate of return, before personal tax, on an investment that has franking credits, compared with an investment that has similar risk and no franking credits.

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398 NGR 87(4).

399 The formal Fisher equation is: $1+i=(1+r)(1+\pi^e)$, where: $i$ is the nominal interest rate, $r$ is the real interest rate and $\pi^e$ is the expected inflation rate.

400 It is not common to observe a CGS bond with an expiry date that exactly matches that of the regulatory period end. To overcome this, two bonds are selected that fall on either side of the end day of the regulatory period. The dates on these bonds are referred to as the 'straddle' dates. Linear interpolation estimates the yields on the regulatory period end date by assuming a linear increase in yields between the straddle dates on the two bonds observed.

1442. The ERA determined gamma through the Monkhouse formula as the product of the distribution rate and utilisation rate. The distribution rate and utilisation rate are separately estimated.

1443. The distribution rate represents the proportion of imputation credits generated by a benchmark efficient entity that is expected to be distributed to investors. The ERA considered that the distribution rate was a firm-specific, rather than a market-wide, parameter.

1444. To estimate the distribution rate, the ERA relied on 0.9 for the distribution rate from financial reports of the 50 largest Australian Securities Exchange-listed firms.[401]

1445. The ERA considered that the distribution rate was at least 0.9. As detailed by Dr Lally, the three energy network businesses for which data is available produce a higher distribution rate of one. Addressing the problems of limited available data and ability for firm manipulation, the ERA considered the use of the 50 largest listed firms was the best proxy for the distribution rate for the benchmark efficient entity. Dr Lally also found that the distribution rate may be slightly higher with the removal of foreign operations.[402]

1446. The utilisation rate is the weighted average over the utilisation rates of individual investors, with investors able to fully use the credits having a rate of one and those unable to use them having a rate of zero. The ERA considered that the utilisation rate was a market-wide, rather than a firm-wide, parameter.

1447. To estimate the utilisation rate, the ERA relied on the equity ownership approach to determine the percentage of domestic investors in the Australian equity market. The utilisation rate is estimated for all Australian equity from the national accounts of the Australian Bureau of Statistics. The ERA considered that a utilisation rate of 0.60 was appropriate.

1448. Consistent with the 2018 gas rate of return guidelines, the ERA determined a gamma of 0.5.

***Weighted average cost of capital***

1449. Based on the 2018 gas rate of return guidelines and above assessments, the ERA determined the point estimates for each of the parameters (Table 125). The ERA considered the estimates to be consistent with the NGL, NGR and national gas objective.

- The ERA estimated the nominal after tax cost of equity as 6.54 per cent.
- The ERA estimated the nominal cost of debt as 5.01 per cent.
- The ERA's rate of return estimate was 5.70 per cent.

401 Lally, M., *Estimating the Distribution Rate for Imputation Credits for the Top 50 ASX Companies*, October 2018, p. 4.

402 Lally, M., *The Estimation of Gamma: Review of Recent Evidence*, December 2018.

**Table 125: ERA's draft decision rate of return estimate for AA5**

| Component | ATCO proposed | Draft decision |
|---|---|---|
| *Averaging period* | *29 March 2018* | *30 November 2018* |
| **Return on debt (%)** | | |
| 5-year interest rate swap (effective yield) | 2.59 | 2.54 |
| Debt risk premium (10-year average) | 2.267 | 2.254 |
| Debt issuing cost (0.100%) + hedging (0.114%) | 0.214 | 0.214 |
| *Nominal return on debt* | ***5.07*** | ***5.01*** |
| **Return on equity** | | |
| Nominal risk free rate (%) | 2.37 | 2.34 |
| Market risk premium (%) | 6.90 | 6.00 |
| Equity beta | 0.7 | 0.7 |
| *Nominal return on equity (%)* | ***7.20*** | ***6.54*** |
| **Other parameters** | | |
| Debt proportion (%) | 55 | 55 |
| Inflation rate (%) | 1.84 | 1.71 |
| Corporate tax rate (%) | 30 | 30 |
| Franking credit | 0.34 | 0.5 |
| **Nominal after-tax WACC (%)** | **6.03** | **5.70** |
| Real after-tax WACC (%) | 4.11 | 3.92 |

1450. The ERA used a 20-day averaging period to 30 November 2018 as a placeholder and noted that the final decision would be updated for ATCO's final nominated averaging period.

1451. It was further noted that, consistent with the rate of return guidelines, the return on debt would be updated annually, by updating the debt risk premium (which is estimated as a historical trailing average), and the reference tariff would be automatically updated.

1452. The ERA required ATCO to amend its rate of return to be 5.70 per cent.

> **Draft Decision Required Amendment 9**
>
> ATCO must amend its rate of return estimate to be 5.70 per cent (vanilla nominal after-tax).

## *ATCO's response to the draft decision*

1453. Given that the rate of return guidelines are now a binding instrument in Western Australia, ATCO acknowledged the requirement to implement them and did not recontest the matters that it had previously raised about the guidelines (see paragraph 1397).[403]

1454. ATCO re-estimated the market driven parameters in its revised proposal to better reflect the prevailing market conditions. ATCO submitted that it adopted market data to 30 April 2019 as a placeholder and would separately nominate a confidential sampling period for the purpose of the ERA's final decision.[404]

1455. ATCO's estimate of the rate of return for its revised proposal was 4.87 per cent (nominal after-tax). Table 126 details the parameters that ATCO used to derive this estimate.

- Risk free rate
  - ATCO re-estimated the risk free rate and derived the inflation estimate from Commonwealth Government Securities in accordance with the binding rate of return guidelines.[405] It noted the material decline in the risk free rate since December 2018 and submitted further information on this (see paragraph 1456).
- Five-year interest swap rate (effective yield)
  - ATCO re-estimated the interest swap rate in accordance with the binding rate of return guidelines.[406]
- Debt risk premium
  - ATCO updated the debt risk premium estimate to reflect the 2019 tariff variation mechanism and adopted the value from the ERA's draft decision for the 2020 forecast[407] (that is, the 2020 forecast was not re-estimated and corresponds to the value determined by the ERA in Table 124).

[403] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, p. 200.
[404] ATCO, 2020-24 *Revised Plan (Access Arrangement Information*), p. 200.
[405] ATCO, 2020-24 *Revised Plan (Access Arrangement Information*), p. 200.
[406] ATCO, 2020-24 *Revised Plan (Access Arrangement Information*), p. 200.
[407] ATCO, 2020-24 *Revised Plan (Access Arrangement Information*), p. 201.

**Table 126 ATCO's revised rate of return estimate for AA5**

| Parameter | ERA draft decision | ATCO revised proposal |
|---|---|---|
| Nominal risk free rate (%) | 2.34 | 1.48 |
| Real risk free rate (%) | 0.62 | 0.20 |
| Inflation rate (%) | 1.71 | 1.28 |
| Debt proportion (%) | 55 | 55 |
| Debt risk premium (10-year average) (%) | 2.254 | 2.254 |
| 5-year interest rate swap (effective yield) (%) | 2.54 | 1.74 |
| 5-year interest rate swap spread (%) | 0.20 | 0.26 |
| Debt issuing cost (0.100%) + hedging (0.114%) (%) | 0.214 | 0.214 |
| Return on debt (%) | 5.01 | 4.21 |
| Market risk premium (%) | 6.00 | 6.00 |
| Equity beta | 0.7 | 0.7 |
| Corporate tax rate (%) | 30 | 30 |
| Franking credit | 0.5 | 0.5 |
| Nominal after-tax return on equity (%) | 6.54 | 5.68 |
| **Nominal after-tax WACC (%)** | **5.70** | **4.87** |
| Real after-tax WACC (%) | 3.92 | 3.55 |

*Source: ATCO, 2020-24 Revised Plan (Access Arrangement Information), Table 12.1 and Table 12.4.*

### *Material decline in the risk free rate*

1456. ATCO noted that, since the publication of the 2018 rate of return guidelines, the allowed return on equity had fallen by an additional 80 basis points, in line with the fall in government bond yields. ATCO submitted that:[408]

> During the development of the binding rate of return legislation in 2018, industry stakeholders advocated for the inclusion of provisions to reopen the rate of return instrument in the event of significant market disruption during a regulatory control period. The final legislation did not include any reopener provisions due to the overriding policy intent to ensure that the binding instrument was not subject to review and therefore change mid-period. However, ATCO now finds itself in the circumstance where there has been a material movement in the risk-free rate that has created significant regulatory uncertainty, the exact circumstances that stakeholders had raised, and policy makers had sought to avoid.
>
> …
>
> The risk-free rate volatility is currently at an extreme, being lower than at any other time in recorded history. The key question is whether real world commercial equity investors currently require a return on equity lower than at any other time in recorded history.

[408] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, pp. 202-204.

> Unless the ERA is confident about that, it could not be satisfied that its approach to the allowed return on equity in the 2018 Guideline will contribute to the NGO to the greatest degree in the current market conditions.
>
> If it is the case that equity investors in a workably competitive market would require a return of more than 5.5% in order to invest in the benchmark efficient entity, the ERA's regulatory allowance clearly does not contribute to the achievement of the [national gas objective] because it will be insufficient to attract the investment.
>
> In relation to this point, Australian regulators have previously been presented with detailed evidence to support the proposition that equity investors in workably competitive markets do not determine their required return by simply adding a fixed premium to the prevailing government bond yield.
>
> …
>
> In its 2018 Guideline, the ERA has set an allowed return on equity that it considers to be consistent with the [national gas objective] as at December 2018. Accepting that to be the case, it does not logically follow that the approach the ERA adopted to determining the allowed return on equity will always produce the estimate that best contributes to achievement of the [national gas objective] in all market conditions.
>
> Rather, the question of 'whether a particular determination of the allowed return on equity contributes to the [national gas objective] to the greatest degree' should be considered on the basis of information about financial market conditions at the time.

## *Submissions to the ERA*

1457. No submissions on ATCO's initial proposal addressed the rate of return.

1458. Energy Networks Australia's submission to the ERA's draft decision and ATCO's revised proposal addressed the risk free rate. Energy Networks Australia noted the material decline in the risk free rate and agreed with ATCO's comments in its revised proposal on the risk free rate volatility (see paragraph 1456).[409]

1459. Synergy's submission in response to the ERA's draft decision and ATCO's revised proposal addressed the rate of return. Synergy noted the change in market driven parameters, specifically the reductions in the risk free rate that resulted in a reduction in the rate of return from 5.70 per cent to 4.87 per cent.[410] It submitted:

> These reductions in-turn result in lower prices and are to the benefit of gas users. Notwithstanding the change in market conditions, ATCO must demonstrate and the ERA must assess whether the revised rate of return included in ATCO's Revised Plan meets the [national gas objective].
>
> As ATCO highlights, these values used are only a placeholder and ATCO will "…separately nominate a confidential sampling period to be applied for the purposes of the Final Decision…". As such, the forecast reduction in prices proposed by ATCO, with no other material change made by ATCO in response to the Draft Decision, is also a placeholder price path, and will ultimately be influenced by the final rate of return market driven parameters. In the absence of any material change in other revenue building blocks as was required by the ERA in its Draft Decision:
>
> - the price path proposed by ATCO remains higher than the ERA's Draft Decision;
> - the return of market parameters back to a level similar to that included in ATCO's initial proposal will result in a tariff path significantly higher than the untenable levels originally proposed by ATCO; and

[409] Energy Networks Australia submission, 10 July 2019, p. 14.

[410] Synergy submission, 10 July 2019, pp. 4-5.

- an increase in market parameters has the potential to increase the prices well beyond levels commonly associated with price shock for multiple years of the AA5 period.

## *Final decision*

1460. On 5 June 2019, ATCO proposed the averaging period for calculating the risk free rate and debt risk premium as part of the rate of return for AA5 and restated its concern about the material decline in the risk free rate.

1461. The ERA accepts ATCO's nomination of the averaging periods for its market-based parameters of the rate of return, which will be applied in the final decision and remain confidential before the periods. For the final decision the averaging period for the market-based parameters is the 20 trading days to 30 September 2019.

1462. As indicated and acknowledged by ATCO, the rate of return guidelines (2018) are now a binding instrument in Western Australia. The ERA and ATCO cannot depart from the binding guidelines when reviewing the access arrangement for the GDS.

1463. On the matter raised by ATCO concerning the material decline in the risk free rate, the ERA responded to ATCO on 18 June 2019, restating that the ERA's rate of return approach is binding for gas pipelines. The ERA is unable to change its approach to determining the rate of return.

1464. As a binding instrument, the rate of return guidelines use market information to estimate the prevailing returns that compensate investors for holding assets with a similar risk of return as the regulated asset. At the future review of the binding instrument, the ERA would encourage ATCO to make a submission if it considers there are grounds to amend the approach to the rate of return.

1465. The ERA has determined the rate of return estimate for this final decision consistent with the binding rate of return guidelines and the assessments that were undertaken for the draft decision, using the averaging period nominated by ATCO (Table 127).

- The ERA estimates the nominal after tax cost of equity as 5.02 per cent.
- The ERA estimates the nominal cost of debt as 3.45 per cent.
- The ERA's rate of return estimate is 4.16 per cent.

**Table 127: ERA's final decision rate of return estimate for AA5**

| Component | Final decision |
|---|---|
| **Return on debt (%)** | |
| 5-year interest rate swap (effective yield) | 0.961% |
| Debt risk premium (10-year average) | 2.273% |
| Debt issuing cost (0.100%) + hedging (0.114%) | 0.214% |
| *Nominal return on debt* | ***3.45%*** |
| **Return on equity** | |
| Nominal risk free rate (%) | 0.82% |
| Market Risk Premium (%) | 6.00% |
| Equity beta | 0.7 |
| *Nominal return on equity (%)* | ***5.02%*** |
| **Other parameters** | |
| Debt proportion (%) | 55% |
| Inflation rate (%) | 1.14% |
| Corporate tax rate (%) | 30% |
| Franking credit | 0.5 |
| **Nominal after-tax WACC (%)** | **4.16%** |
| Real after-tax WACC (%) | 2.98% |

**Required Amendment 8**

The return on the capital base must reflect the weighted average cost of capital parameters in Table 127 of this Final Decision.

## *Depreciation*

1466. Rule 88(1) of the NGR provides that the "depreciation schedule sets out the basis on which the pipeline assets constituting the capital base are to be depreciated for the purpose of determining a reference tariff." Rule 88(2) provides that the "depreciation schedule may consist of a number of separate schedules, each relating to a particular asset or class of assets".

1467. Rules 89 and 90 of the NGR specify depreciation criteria and requirements for the calculation of depreciation for establishing the opening capital base for the subsequent access arrangement.

1468. The depreciation criteria specified by rule 89 are as follows:

> **89 Depreciation criteria**
>
> (1) The depreciation schedule should be designed:
>
> (a) so that reference tariffs will vary, over time, in a way that promotes efficient growth in the market for reference services; and
>
> (b) so that each asset or group of assets is depreciated over the economic life of that asset or group of assets; and
>
> (c) so as to allow, as far as reasonably practicable, for adjustment reflecting changes in the expected economic life of a particular asset, or a particular group of assets; and
>
> (d) so that (subject to the rules about capital redundancy), an asset is depreciated only once (ie that 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 (adjusted, if the accounting method approved by the [ERA] permits, for inflation)); and
>
> (e) so as to allow for the service provider's reasonable needs for cash flow to meet financing, non-capital and other costs.
>
> (2) Compliance with subrule (1)(a) may involve deferral of a substantial proportion of the depreciation, particularly where:
>
> (a) the present market for pipeline services is relatively immature; and
>
> (b) the reference tariffs have been calculated on the assumption of significant market growth; and
>
> (c) the pipeline has been designed and constructed so as to accommodate future growth in demand.
>
> (3) The [ERA's] discretion under this rule is limited.

1469. The ERA's discretion is limited under rule 89 of the NGR. Rule 40(2) of the NGR sets out the circumstances where the ERA has limited discretion powers. This means that, where a provision of the NGL or NGR states that the ERA's discretion is limited, the ERA must not withhold its approval of an element of an access arrangement proposal if it is satisfied that the element complies with the applicable requirements of the NGL and the NGR and is consistent with applicable criteria (if any).

1470. Rule 40(2) of the NGR provides the following example:

> The [ERA] has limited discretion under rule 89. (See rule 89(3).) This rule governs the design of a depreciation schedule. In dealing with a full access arrangement submitted for its approval, the [ERA] cannot, in its draft decision, insist on change to an aspect of a depreciation schedule governed by rule 89 unless the [ERA] considers change necessary to correct non-compliance with a provision of the Law or an inconsistency between the schedule and the applicable criteria. Even though the [ERA] might consider change desirable to achieve more complete conformity between the schedule and the principles and objectives of the Law, it would not be entitled to give effect to that view in the decision making process.

1471. Rule 90 of the NGR 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.

## *ATCO's initial proposal*

1472. ATCO proposed to use the straight line method (that is, a current cost accounting approach) to forecast depreciation of all assets for AA5. The straight line method is the same as the depreciation method used for AA4. ATCO proposed total forecast depreciation of $294.3 million for AA5 (Table 128).

**Table 128 ATCO's proposed forecast depreciation for 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.*

1473. Table 129 shows the asset lives applicable for calculating depreciation for AA4 and ATCO's proposed asset lives for AA5.

**Table 129: ATCO's AA4 asset lives and proposed AA5 asset lives**

| Asset categories | Asset life AA4 | Asset life AA5 |
|---|---|---|
| *Current and new asset categories* | | |
| High pressure mains - Steel | 80.0 | 80.0 |
| High pressure mains - PE | 60.0 | 60.0 |
| Medium and low pressure mains | 60.0 | 60.0 |
| Regulators | 40.0 | 40.0 |
| Secondary gate stations | 40.0 | 40.0 |
| Buildings | 40.0 | 40.0 |
| Meter and services pipes | 25.0 | 25.0 |
| Plant and equipment | 10.0 | 10.0 |
| Vehicles | 10.0 | 10.0 |
| Information technology | 5.0 | 5.0 |
| Land | - | - |
| Equity raising cost | 65.8 | 53.1 |
| Telemetry | n/a* | 10.0 |
| *Historical asset categories - no longer used for new capex* | | |
| Medium pressure mains | 60.0 | 60.0 |
| Low pressure mains | 60.0 | 60.0 |
| Full retail contestability (historical IT costs) | 5.0 | 5.0 |

** Prior to AA5, telemetry was included in the information technology category.*

*Source: ATCO, 2020-24 Plan (Access Arrangement Information), p. 123, Table 13.4*

1474. As shown in Table 129, the proposed asset lives for AA5 are the same as for AA4 except for the equity raising cost asset category. ATCO stated that it had proposed to reduce the asset life of equity raising costs to align with the average life of assets at 31 December 2019, rather than 30 June 2014.

1475. ATCO proposed telemetry as a new asset category for AA5. The assets within the proposed telemetry asset category were included in the information technology asset category for AA4. ATCO stated that it created the telemetry asset category due to an increased need for remote asset monitoring.

1476. ATCO proposed to calculate the opening capital base for AA6 using AA5 forecast depreciation. This is the same approach that was used in AA4.

## *Draft decision*

1477. The ERA approved ATCO's current cost accounting approach (that is, the straight-line method on a real dollar basis) for calculating the depreciation on the regulatory asset base for AA5. This was the same approach used to calculate depreciation in previous access arrangements for the GDS. The approach is consistent with the criteria under rule 89(1) of the NGR and complies with the NGL as it:

- Promotes efficient growth in the market for reference services by allowing for efficient use of the GDS.
- Encourages efficient production and investment decisions by the service provider, thereby contributing to efficient growth in the market for reference services.
- Avoids price shocks for consumers when major assets reach the end of their effective life and are replaced.
- Ensures outcomes that are in the long-term interest of consumers with respect to price by avoiding subsidies between current and future consumers.

1478. ATCO's proposal to include telemetry as a new asset category was, in principle, acceptable in the draft decision. Rule 89(1)(c) of the NGR specifies that the depreciation schedule should be designed to allow for adjustment reflecting changes in the expected economic life of a particular asset or group of assets. ATCO stated that the proposal for the new asset class was due to its increased need for remote monitoring of its assets, which also drove its proposal to incur $12.6 million of capital expenditure during AA5 for supervisory control and enhanced data acquisition assets. Although this proposed capital expenditure was not included as conforming capital expenditure in the draft decision, as discussed at paragraphs 922 to 933, the ERA accepted the inclusion of the telemetry as a new category as being in line with rule 89(1)(c) of the NGR.

1479. EMCa considered that the asset life of 25 years that ATCO proposed for the meters and service pipes category was significantly different from the ranges of asset lives for meters and service pipes applied by other Australian utility providers. EMCa stated that other utilities applied asset lives of 50 to 60 years for service pipes and 15 years for meters.[411] For the purposes of the draft decision, the ERA did not separate out the economic lives of meters and service pipes, which have been combined in previous access arrangements. The ERA noted that it may consider this further in the final decision if interested parties raised valid arguments which would support this change being consistent with the national gas objective.

1480. Notwithstanding the further consideration to be given to the meters and service pipes category, the ERA's draft decision considered that ATCO's proposed asset lives for the asset categories are in line with the requirements of rule 88 of the NGR and the criteria set by rule 89 of the NGR. The proposed asset lives were therefore applied for the draft decision.

1481. Table 130 shows the required depreciation amounts for AA5 as set out in the draft decision. The ERA required ATCO to amend the proposed depreciation schedule in accordance with these amounts.

[411] Energy Market Consulting Associates, *Review of Technical Aspects of the Proposed Access Arrangement,* 15 January 2019, paragraphs 152 - 153.

**Draft Decision Required Amendment 10**

ATCO must amend its proposed depreciation schedule in accordance with Table 71 of [the] draft decision. [Table 130 of this final decision]

**Table 130: ERA's draft decision forecast depreciation for AA5 ($ million real as at 31 December 2019)**

| Asset categories | 2020 | 2021 | 2022 | 2023 | 2024 | AA5 total |
|---|---|---|---|---|---|---|
| High pressure mains - Steel | 3.48 | 3.52 | 3.54 | 3.59 | 3.62 | **17.75** |
| High pressure mains - PE | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | **0.28** |
| Medium pressure mains | 5.97 | 5.97 | 5.97 | 5.97 | 5.97 | **29.86** |
| Medium/low pressure mains | 9.46 | 9.82 | 10.23 | 10.63 | 11.01 | **51.15** |
| Low pressure mains | 1.43 | 1.43 | 1.43 | 1.43 | 1.43 | **7.14** |
| Regulators | 1.18 | 1.19 | 1.20 | 1.21 | 1.22 | **6.00** |
| Secondary gate stations | 0.14 | 0.43 | 0.43 | 0.44 | 0.30 | **1.74** |
| Buildings | -0.09 | 0.83 | 0.84 | 0.82 | 0.82 | **3.22** |
| Meter and services pipes | 20.02 | 20.51 | 20.95 | 21.40 | 21.85 | **104.74** |
| Equipment and vehicles | 1.77 | 1.81 | 1.78 | 1.54 | 1.11 | **8.01** |
| Vehicle | -0.13 | 1.31 | 1.75 | 1.91 | 2.18 | **7.02** |
| Information technology | 1.76 | 6.48 | 5.55 | 4.64 | 4.53 | **22.97** |
| Telemetry and Monitoring | 0.00 | 0.08 | 0.17 | 0.25 | 0.32 | **0.82** |
| Full retail contestability | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | **0.00** |
| Land | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | **0.00** |
| Equity raising cost | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | **0.08** |
| **Total depreciation** | **45.06** | **53.46** | **53.91** | **53.90** | **54.45** | **260.79** |

## *ATCO's response to the draft decision*

1482. ATCO did not accept the ERA's draft decision required amendment 10. ATCO's revised forecast depreciation for AA5 of $286.49 million was based on its revised forecast capital expenditure (capex) and opening capital base and is shown in Table 131.

1483. Providing its revised forecast, ATCO noted that it had split the information technology asset category into two asset classes.[412]

> Note that information technology has been split into two asset classes for ease of reconciliation to supporting schedules and the tax asset base, although all IT capex has

[412] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 196.

the same economic life of 5 years. Information technology includes all IT capex projects that are software. Miscellaneous IT equipment includes equipment such as mobile phones.

**Table 131: ATCO's forecast depreciation for AA5 ($million real as at 31 December 2019)**

| Asset categories | 2020 | 2021 | 2022 | 2023 | 2024 | Total |
|---|---|---|---|---|---|---|
| High pressure mains - Steel | 3.52 | 3.55 | 3.59 | 3.64 | 3.68 | **17.98** |
| High pressure mains - PE | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | **0.39** |
| Medium pressure mains | 5.97 | 5.97 | 5.97 | 5.97 | 5.97 | **29.86** |
| Medium/low pressure mains | 10.15 | 10.84 | 11.40 | 11.97 | 12.55 | **56.91** |
| Low pressure mains | 1.43 | 1.43 | 1.43 | 1.43 | 1.43 | **7.14** |
| Regulators | 1.20 | 1.23 | 1.25 | 1.27 | 1.29 | **6.24** |
| Secondary gate stations | 0.13 | 0.60 | 0.69 | 0.84 | 0.71 | **2.97** |
| Buildings | -0.01 | 0.90 | 0.91 | 0.89 | 0.89 | **3.60** |
| Meter and services pipes | 20.52 | 21.64 | 22.79 | 24.03 | 25.32 | **114.30** |
| Equipment and vehicles | 1.98 | 2.02 | 1.97 | 1.73 | 1.29 | **8.98** |
| Vehicle | -0.18 | 1.30 | 1.77 | 1.95 | 2.25 | **7.09** |
| *Information technology* | *2.93* | *7.50* | *6.54* | *5.82* | *6.18* | ***28.97*** |
| *Miscellaneous IT equipment* | *0.00* | *0.02* | *0.03* | *0.05* | *0.07* | ***0.17*** |
| Telemetry and monitoring | 0.00 | 0.14 | 0.35 | 0.56 | 0.77 | **1.82** |
| Full retail contestability | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | **0.00** |
| Land | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | **0.00** |
| Equity raising cost | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | **0.07** |
| **Total** | **47.73** | **57.22** | **58.79** | **60.25** | **62.50** | **286.49** |

*Source: ATCO, 2020-24 Revised Plan (Access Arrangement Information), p. 196 and Tariff Model (public).*

## *Submissions to the ERA*

1484. No submissions to the ERA addressed ATCO's initial proposal for forecast depreciation.

1485. There were no submissions on this matter in response to the draft decision or in response to ATCO's revised proposal for forecast depreciation.

## *Final decision*

1486. Apart from the change to split the information technology asset category into two asset classes, ATCO's revised proposal used the same method to calculate forecast depreciation as its initial proposal.

1487. The ERA considers that it is unnecessary to split the information technology asset category given values of the miscellaneous IT equipment asset class are less than $100,000.

1488. Consistent with the considerations elsewhere in this final decision in the opening and projected capital base chapters, the ERA has recalculated the forecast depreciation amount for AA5 (Table 132).

**Table 132: ERA's final decision forecast depreciation for AA5 ($ million real as at 31 December 2019)**

| Asset categories | 2020 | 2021 | 2022 | 2023 | 2024 | AA5 total |
|---|---|---|---|---|---|---|
| High pressure mains - Steel | 3.48 | 3.51 | 3.55 | 3.60 | 3.63 | **17.76** |
| High pressure mains - PE | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | **0.36** |
| Medium pressure mains | 5.94 | 5.94 | 5.94 | 5.94 | 5.94 | **29.69** |
| Medium/low pressure mains | 9.85 | 10.53 | 11.08 | 11.63 | 12.20 | **55.29** |
| Low pressure mains | 1.42 | 1.42 | 1.42 | 1.42 | 1.42 | **7.09** |
| Regulators | 1.16 | 1.19 | 1.21 | 1.23 | 1.25 | **6.03** |
| Secondary gate stations | 0.10 | 0.39 | 0.39 | 0.39 | 0.26 | **1.53** |
| Buildings | (0.02) | 0.89 | 0.90 | 0.87 | 0.88 | **3.51** |
| Meter and services pipes | 19.81 | 20.93 | 22.08 | 23.32 | 24.59 | **110.73** |
| Equipment and vehicles | 1.86 | 1.85 | 1.81 | 1.56 | 1.12 | **8.21** |
| Vehicle | (0.17) | 1.29 | 1.76 | 1.95 | 2.24 | **7.06** |
| Information technology | 2.47 | 7.04 | 6.12 | 5.42 | 5.98 | **27.04** |
| Telemetry and monitoring | 0.15 | 0.27 | 0.47 | 0.61 | 0.75 | **2.25** |
| Full retail contestability | 0.00 | - | - | - | - | **0.00** |
| Land | - | - | - | - | - | **-** |
| Equity raising cost | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | **0.07** |
| **Total** | **46.12** | **55.33** | **56.80** | **58.02** | **60.35** | **276.62** |

**Required Amendment 9**

The depreciation of the capital base must reflect the values in Table 132 of this final decision.

## *Taxation*

1489. Rule 76(c) of the NGR establishes the estimated cost of corporate income tax as a separate building block for the determination of total revenue.

1490. Rule 87A of the NGR provides the formula for calculating the estimated cost of corporate income tax:

> **87A. Estimated cost of corporate income tax**
>
> (1) The estimated cost of corporate income tax of a service provider for each regulatory year of an access arrangement period (ETCt) is to be estimated in accordance with the following formula:
>
> $ETC_t = (ETI_t \times r_t)(1-\gamma)$
>
> Where
>
> ETIt is an estimate of the taxable income for that regulatory year that would be earned by a benchmark efficient entity as a result of the provision of reference services if such an entity, rather than the service provider, operated the business of the service provider;
>
> rt is the expected statutory income tax rate for that regulatory year as determined by the [ERA]; and
>
> $\gamma$ is the allowed imputation credits for the regulatory year.

## *ATCO's initial proposal*

1491. ATCO used the formula in rule 87A to calculate the estimated cost of corporate tax for each regulatory year in AA5.

1492. ATCO applied a value for the expected statutory income tax rate for each regulatory year in AA5 of 30 per cent, equal to the current statutory corporate income tax rate.[413]

1493. ATCO applied a value for allowed imputation credits of 0.34, calculated using aggregate statistics published by the Australian Taxation Office.[414]

1494. ATCO calculated the estimated taxable income for each regulatory year in AA5 using the method applied in the ERA's final decision for AA4. Specifically:

| | |
|---|---|
| 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.[415] |

1495. ATCO's calculation of the estimated cost of corporate income tax for each regulatory year in AA5 is set out in Table 133.

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

[414] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, pp. 138-140.

[415] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 143.

**Table 133: ATCO's calculation of estimated 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 |
| Value of imputation credits | (2.3) | (1.9) | (1.5) | (1.4) | (1.2) |
| **Estimated 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.*

### *Tax asset lives*

1496. The tax lives for asset classes proposed by ATCO for the purpose of calculating the tax asset base in AA5 are set out in Table 134.

**Table 134: ATCO's proposed tax lives (years)**

| Asset class | AA4 tax life | AA5 tax life |
|---|---|---|
| High pressure mains - Steel | 20 | 20 |
| High pressure mains - PE | 20 | 20 |
| Medium and low pressure mains | 20 | 20 |
| Regulators | 40 | 40 |
| Secondary gate stations | 40 | 40 |
| Buildings | 40 | 40 |
| Meter and service pipes | 25 | 25 |
| Equipment and vehicles | 10 | 10 |
| Information technology | 4 | 4 |
| Land | - | - |
| Equity raising cost | 5 | 5 |
| Telemetry | - | 10 |
| **Historical asset class (No longer used for new expenditure)** | | |
| Medium pressure mains | 20 | 20 |
| Low pressure mains | 20 | 20 |

*Source: ATCO, 2020-24 Plan (Access Arrangement Information), p. 141, Table 15.3.*

1497. For AA5, ATCO added a new asset class for telemetry to capture an increasing level of investment in monitoring systems, including SCADA.[416] ATCO submitted that a tax asset life for telemetry of 10 years was consistent with the Commissioner for Taxation's Ruling for the gas supply industry (TR 2017/2).[417]

### *Tax depreciation method*

1498. ATCO used the straight line method to calculate tax depreciation on:

- Actual capital expenditure proposed for each regulatory year in AA4, used to calculate the opening value of the tax asset base for AA5 (in 2020).[418]
- Forecast capital expenditure proposed for each regulatory year for AA5, used to calculate the opening value of the tax asset base for the remaining regulatory years in AA5 (in 2021 to 2024).[419]

### *Tax asset base*

1499. ATCO used the roll forward method to establish the opening value of the tax asset base for each regulatory year in AA5.

1500. The opening tax asset base for the first regulatory year in AA5 (2020) was calculated by rolling forward the closing value of the actual tax asset base for AA4, as adjusted to reflect actual capital expenditure proposed by ATCO for each regulatory year of AA4.[420]

1501. The actual tax asset base proposed by ATCO for each regulatory year in AA4 is set out in Table 135.

**Table 135: ATCO's proposed actual tax asset base for AA4 ($ million nominal)**

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|
| Opening tax asset base | 467.2 | 484.3 | 511.0 | 546.0 | 581.3 | 623.9 |
| Capital expenditure | 40.2 | 75.5 | 87.9 | 89.1 | 96.5 | 88.6 |
| Tax depreciation | (23.0) | (48.8) | (52.6) | (53.6) | (54.0) | (57.9) |
| Asset disposals | 0.0 | 0.0 | (0.2) | (0.2) | 0.0 | 0.0 |
| **Closing value** | **484.3** | **511.0** | **546.0** | **581.3** | **623.9** | **654.6** |

*Source: ATCO, 2020-24 Plan (Access Arrangement Information), p. 142, Table 15.4.*

1502. The opening tax asset base for the remaining regulatory years in AA5 (2021 to 2024) was calculated by rolling forward the closing value of the tax asset base in the previous regulatory year, as adjusted to reflect forecast capital expenditure and depreciation proposed by ATCO for each regulatory year during AA5.[421]

[416] Supervisory Control and Data Acquisition.

[417] ATCO, *2020-24 Plan (Access Arrangement Information)*, p. 141.

[418] See the subsection on the Opening Capital Base in the Revenue and Tariffs Chapter of this Final Decision.

[419] See the subsection on the Projected Capital Base in the Revenue and Tariffs Chapter of this Final Decision.

[420] ATCO, *2020-24 Plan (Access Arrangement Information)*, p. 142.

[421] ATCO, *2020-24 Plan (Access Arrangement Information)*, pp. 141-142.

1503. The forecast tax asset base proposed by ATCO for each regulatory year in AA5 is set out in Table 136.

**Table 136: ATCO's proposed forecast tax asset base for AA5 ($ million nominal)**

| | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Opening tax asset base | 654.6 | 697.7 | 736.5 | 771.9 | 807.7 |
| Capital expenditure | 105.3 | 106.0 | 106.0 | 109.9 | 110.9 |
| Tax depreciation | (62.2) | (67.2) | (70.6) | (74.1) | (78.7) |
| Asset disposals | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Closing value** | **697.7** | **736.5** | **771.9** | **807.7** | **839.9** |

*Source: ATCO, 2020-24 Plan (Access Arrangement Information), p. 142, Table 15.4.*

## *Draft decision*

1504. The ERA assessed ATCO's calculations of the estimated cost of corporate income tax for each regulatory year in AA5 against the requirements of rule 87A of the NGR.

1505. The ERA accepted ATCO's value for the expected statutory income tax for each regulatory year in AA5 of 30 per cent, which was consistent with expectations for the statutory company tax rate over the AA5 period.

1506. The ERA used a value for allowed imputation credits of 0.5, as required under (binding) rate of return guidelines.[422]

1507. To calculate ATCO's estimated taxable income, the ERA focussed on the requirement that this must reflect the taxable income in each regulatory year that would be earned by a benchmark efficient entity, if such an entity operated the gas distribution system.

1508. The ERA calculated estimated taxable income using the following methodology:

Smoothed tariff revenue:

***plus*** revenue from prudent discounts

***plus*** ancillary service revenue

***minus*** approved forecast operating expenditure

***minus*** depreciation of the tax asset base (excluding capital contributions), calculated using the straight line method for assets purchased before 1 January 2020 and the diminishing value method for assets purchased on or after 1 January 2020

***minus*** debt servicing costs, calculated by multiplying the debt portion of the opening regulatory asset base by the debt to equity ratio (assumed at

[422] Economic Regulation Authority, *Rate of Return Guidelines (2018) Meeting the requirements of the National Gas Rules*, 18 December 2018, pp. 39–40.

55 per cent) and the ERA's determined nominal cost of debt based on the Rate of Return chapter of the draft decision

***equals*** estimated taxable income.

1509. The ERA's draft decision calculation of the estimated cost of corporate income tax for each regulatory year[423] in AA5 is set out in Table 137.

**Table 137: ERA's draft decision estimates for the cost of corporate income tax in AA5 ($ million nominal)**

| | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Estimated taxable income | (38.55) | (26.25) | (13.20) | 1.16 | 16.35 |
| Tax payable | 0.00 | 0.00 | 0.00 | (0.35) | (4.90) |
| Value of imputation credits | 0.00 | 0.00 | 0.00 | 0.17 | 2.5 |
| **Estimated corporate income tax** | **0.00** | **0.00** | **0.00** | **(0.17)** | **(2.45)** |

*Source: Economic Regulation Authority, Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024, 18 April 2019, p.164.*

### *Tax asset lives*

1510. The tax lives for asset classes determined by the ERA for the purpose of calculating the tax asset base in AA5 are set out in Table 138.

[423] These will be re-calculated in each year of AA5 as part of the tariff variation process that also includes changes to update the debt risk premium.

**Table 138: ERA's draft decision tax lives (years)**

| Asset Class | Tax lives for capital expenditure prior to 1 January 2020 | Tax lives for capital expenditure on or after 1 January 2020 |
|---|---|---|
| High pressure mains – Steel | 20 | 20 |
| High pressure mains - PE | 20 | 20 |
| Medium and low pressure mains | 20 | 20 |
| **Regulators** | **40** | **20** |
| **Secondary gate stations** | **40** | **20** |
| Buildings | 40 | 40 |
| Meters and service pipes to 31 December 2007 | 25 | - |
| Meters and service pipes from 1 January 2008 | 15 | 15 |
| Equipment and vehicles | 10 | 10 |
| Information technology | 4 | 4 |
| **Telemetry** | **-** | **10** |
| Land | - | - |
| Equity raising cost | 5 | 5 |

*Source: Economic Regulation Authority, Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024, 18 April 2019, p.154.*

1511. The ERA accepted ATCO's proposal that the inclusion of a new asset class of telemetry was warranted and considered that a 10-year tax life would be consistent with the tax asset life for "control systems (excluding computers)" in the Commissioner for Taxation's Ruling for the gas supply industry (TR2018/4).[424]

1512. The ERA required ATCO to amend the tax lives for "Regulators" and "Secondary gate stations" purchased from 1 January 2020, from 40 to 20 years.

1513. The ERA considered that the consistent application of 20-year statutory caps on the tax lives of some asset classes (including Regulators and Secondary gate stations), as identified Ruling TR2018/4,[425] would be an efficient regulatory benchmark. That is, by taking this approach, an entity would increase the net present value of depreciation deductions calculated for taxation purposes and, therefore, minimise the net present value of its corporate tax expense and maximise the net present value of its investment.

[424] Australian Taxation Office, *Income tax: effective life of depreciating assets*, Taxation Ruling (TR 2018/4), 1 July 2018, which replaced TR 2017/2.

[425] Australian Taxation Office, *Income tax: effective life of depreciating assets*, Taxation Ruling (TR 2018/4), 1 July 2018.

1514. Further, the ERA considered that this amendment would be consistent with:

- The 20-year statutory caps on the tax lives for these asset classes, as specifically identified in the Commissioner for Taxation's Ruling for the gas supply industry (TR2018/4).[426]
- A similar recommendation in the AER's 2018 Review of the Regulatory Tax Approach, which was that the "current regulatory tax should be adjusted to reflect the application of a 20-year tax life cap for new gas assets."[427]
- ATCO's submission to the AER's Review of the Regulatory Tax Approach, which indicated that statutory caps, as permitted under tax law, should only be applied prospectively to avoid unintended pricing effect.[428]

### *Immediate expensing of refurbishment capital expenditure*

1515. The ERA indicated that it was re-considering the taxation treatment for refurbishment capital expenditure in the regulatory model on the basis of:

- Findings in the AER's 2018 Review of the Regulatory Tax Approach that immediate expensing of refurbishment capital expenditure in actual tax returns submitted by regulated entities was a material driver of differences between forecast regulatory tax allowances and actual tax paid.[429]
- Submissions by industry stakeholders, including ATCO, to the AER review, that acknowledged it would be possible for regulated entities to immediately expense refurbishment capital expenditure in actual tax returns while capitalising these expenses for regulatory purposes.[430]

1516. Specifically, the ERA noted that the AER had:

- Considered that, when an entity does take the option to immediately expense refurbishment capital expenditure to reduce the net present value of taxation costs, this provided a windfall gain for the entity that would not directly benefit consumers in the form of lower network charges.[431]
- Determined that immediate expensing of refurbishment capital expenditure would better promote the long-term interests of consumers, as required under the national gas objective.[432]

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426 Australian Taxation Office, *Income tax: effective life of depreciating assets*, Taxation Ruling (TR 2018/4), 1 July 2018.

427 Australian Energy Regulator, *Final Report: Review of regulatory tax approach (Final Report)*, 17 December 2018, p. 20.

428 ATCO, *Access Arrangement Information, Appendix 26: Review of regulated tax asset base for regulated revenue purposes*, 3 April 2014, p. 8.

429 Australian Energy Regulator, *Final Report: Review of regulatory tax approach (Final Report)*, 17 December 2018, pp. 59–71.

430 ATCO, *ATCO Submission: Review of Regulatory Tax Approach*, 23 November 2018.

431 Australian Energy Regulator, *Final Report: Review of regulatory tax approach (Final Report)*, 17 December 2018, p. 64.

432 Australian Energy Regulator, *Final Report: Review of regulatory tax approach (Final Report)*, 17 December 2018, p. 64.

- Recommended that amendments should be made to its regulatory models that would allow for certain capital expenditure, including refurbishment expenditure, to be included in the regulatory asset base but expensed immediately for the purposes of determining regulatory taxation costs.[433]

1517. Equally, the ERA noted concerns expressed by industry stakeholders, including ATCO, that:

- The extent to which regulated entities would immediately expense refurbishment capital expenditure would depend on a range of factors, including risk appetite when submitting actual tax returns.
- The application of immediate expensing of refurbishment capital expenditure as an efficient regulatory benchmark could create an incentive for entities to replace rather than refurbish assets, including when refurbishment would be a more efficient and prudent approach.[434]

1518. On balance, the ERA considered that refurbishment capital expenditure should be routinely assessed through the propose and respond regulatory approach that was ordinarily used to determine conforming capital expenditure included in both the regulatory and tax asset base.

1519. So, in its draft decision the ERA requested that ATCO submit additional information on its taxation policy for refurbishment capital expenditure as well as the amount of refurbishment capital expenditure proposed in AA5.[435]

### *Tax depreciation method*

1520. In the draft decision the ERA used the diminishing value method as the efficient regulatory benchmark to depreciate new assets purchased from 1 January 2020.

1521. As set out in detail at paragraphs 738 to 769 of the draft decision, the ERA considered evidence and analysis published in:

- Its draft decision and final decision for AA4.[436, 437]
- ATCO's response to the draft decision for AA4, including advice provided by ATCO's consultant, Ernst & Young.[438, 439]

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433 Australian Energy Regulator, *Final Report: Review of regulatory tax approach (Final Report)*, 17 December 2018, p. 20.

434 ATCO, *ATCO Submission: Review of Regulatory Tax Approach*, 23 November 2018.

435 Economic Regulation Authority, *Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024*, 18 April 2019, p. 161.

436 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.

437 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, pp. 453-455.

438 ATCO, *Response to the ERA's Draft Decision on required amendments to the Access Arrangement for the Mid-West and South-West Distribution System*, 27 November 2014, pp. 231-238.

439 ATCO, *Access Arrangement Information 1 July 2014-31 December 2019 (AA4), Appendix 26*, 3 April 2014; and ATCO, *Response to the ERA's Draft Decision on required amendments to the Access Arrangement for the Mid-West and South-West Gas Distribution System*, Appendix 12.4, 1 December 2014.

- The AER's 2018 Review of the Regulatory Tax Approach, which identified alternative regulatory treatments that would improve the measurement of efficient tax costs, including expert advice provided by the AER's consultant Dr Martin Lally and PricewaterhouseCoopers.[440, 441, 442]
- ATCO's submission in response to the AER's draft report for the Review of the Regulatory Tax Approach.[443]

1522. The ERA acknowledged concerns raised by ATCO and its consultant Ernst and Young, as submitted in response to the draft decision for AA4, that a change to the diminishing value method:

- May not be adopted as an effective tax management strategy for privately owned entities.
- Would result in an un-deducted amount at the end of the effective life of a depreciable asset (unless the asset is sold).
- Deferred the recovery of tax costs to future regulatory periods and, therefore, raised issues in relation to intergenerational equity. [444, 445]

1523. On balance, the ERA considered that the AER, through its 2018 Review of the Regulatory Tax Approach, provided compelling arguments to support the ERA's position in the AA4 draft decision – that the diminishing value method would be the efficient regulatory benchmark to calculate tax depreciation.[446]

1524. However, given that Section 40-130 of the *Income Tax Assessment Act 1997* prevents entities from switching between tax depreciation methods for any given asset, the ERA accepted that the benchmark efficient entity would not be able to change the tax depreciation method for existing assets retrospectively.[447] Hence, the ERA determined that ATCO should continue to use straight line method for existing assets purchased prior to 1 January 2020.

1525. The ERA noted that this approach would be consistent with the recommendation in the AER's Review of the Regulatory Tax Approach that "the AER should use a benchmark DV [diminishing value] approach (instead of SL [straight line] depreciation) for new assets … [and] should conduct a formal model change process

[440] Australian Energy Regulator, *Final Report: Review of regulatory tax approach (Final Report)*, 17 December 2018.

[441] Lally, M., *Tax Payments versus the AER's Allowances,* 16 June 2018.

[442] PricewaterhouseCoopers, *AER Tax Review 2018 Expert Advice*, 26 October 2018.

[443] ATCO, *ATCO Submission: Review of Regulatory Tax Approach*, 23 November 2018.

[444] ATCO, *Response to the ERA's Draft Decision on required amendments to the Access Arrangement for the Mid-West and South-West Distribution System*, 27 November 2014, pp. 231-238.

[445] ATCO, *Access Arrangement Information, Appendix 26: Review of regulated tax asset base for regulated revenue purposes*, 3 April 2014.

[446] 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.

[447] Under Section 40.130 of the Income Tax Assessment Act a choice made about depreciation methods must be made by the day the taxpayer lodges their income tax return for the income year to which the choice relates or within a further time period allowed by the Commissioner. That choice, once made, applies to that income year and all later income years.

(with consultation) to consider the implementation of these changes in its regulatory models."[448]

### *Tax asset base*

1526. The ERA used the roll forward method to establish the opening value of the tax asset base for each regulatory year in AA5.

1527. The opening tax asset base for the first regulatory year in AA5 (2020) was calculated by rolling forward the closing value of the actual tax asset base for AA4.

1528. The ERA calculated the closing value of the tax asset base for each regulatory year in AA4 using the method that was determined in the final decision for AA4. Specifically:

> Opening value [equal to the closing value for the previous regulatory year]:
>
> ***plus*** the actual capital expenditure (net of capital contributions) incurred in AA4
>
> ***less*** the depreciation based on the actual capital expenditure
>
> ***less*** any actual asset disposals during AA4.[449]

1529. The actual tax asset base calculated by the ERA for each regulatory year in AA4 is set out in Table 139.

**Table 139: ERA's draft decision actual tax asset base for AA4 ($ million nominal)**

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|
| Opening tax asset base | 467.17 | 483.08 | 502.51 | 527.08 | 544.73 | 566.91 |
| Capital expenditure | 38.97 | 68.18 | 76.83 | 70.10 | 73.62 | 77.39 |
| Tax depreciation | (23.02) | (48.74) | (52.07) | (52.24) | (51.44) | (54.17) |
| Asset disposals | (0.04) | (0.01) | (0.19) | (0.21) | 0.00 | 0.00 |
| **Closing value** | **483.08** | **502.51** | **527.08** | **544.73** | **566.91** | **590.12** |

*Source: Economic Regulation Authority, Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024, 18 April 2019, p.161.*

1530. The ERA calculated the forecast tax asset base and associated depreciation for each regulatory year in AA5 to reflect amendments in previous chapters of the draft decision, including:

- Updates to forecast capital expenditure (including a one-year lag between incurring capital expenditure and commissioning the relevant asset, as determined in the ERA's Final Decision for AA4).
- Changes to the calculation of tax depreciation (including the use of the diminishing value method and application of 20-year statutory caps on the

[448] Australian Energy Regulator, *Final Report: Review of regulatory tax approach (Final Report)*, 17 December 2018, p. 20.

[449] Economic Regulation Authority, *Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024*, 18 April 2019, p. 161.

asset lives for relevant asset categories as the efficient benchmark to depreciate new assets purchased from 1 January 2020).[450]

1531. The forecast tax asset base calculated by the ERA in its draft decision for each regulatory year in AA5 is set out in Table 140.

**Table 140: ERA's draft decision forecast tax asset base for AA5 ($ million nominal)**

| | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Opening tax asset base | 590.12 | 581.53 | 575.05 | 566.89 | 557.82 |
| Capital expenditure | 49.10 | 52.82 | 50.79 | 48.83 | 50.64 |
| Tax depreciation | (57.70) | (59.30) | (58.95) | (57.90) | (57.54) |
| Asset disposals | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Closing value** | **581.53** | **575.05** | **566.89** | **557.82** | **550.92** |

*Source: Economic Regulation Authority, Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024, 18 April 2019, p.162.*

### *Carry forward tax losses*

1532. The ERA calculated a negative value for estimated taxable income in each of the final three regulatory years in AA4. Accordingly, the ERA considered that ATCO had accrued tax losses of $54.41 million (nominal) over the AA4 period.

1533. Under Section 36.17 of the *Income Tax Assessment Act 1997*, a tax loss incurred by a corporate entity in any given financial year can be deducted against taxable income earned in any future financial year, or carried forward indefinitely, at the discretion of the entity. To calculate ATCO's estimated cost of corporate income tax, the ERA considered that an efficient entity would immediately deduct a tax loss incurred in any given regulatory year against estimated taxable income in the following regulatory year.

1534. The estimated taxable income (net of tax losses) calculated by the ERA for each regulatory year in AA4 is set out in Table 141.

**Table 141: ERA's estimated taxable income for AA4 ($ million nominal)**

| | July to Dec 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|
| Estimated taxable income | 30.44 | 31.18 | 8.20 | (5.90) | (17.23) | (31.28) |
| Carried forward tax loss | 0.00 | 0.00 | 0.00 | 0.00 | (5.90) | (23.13) |
| Estimated taxable income (Net of tax losses) | 30.44 | 31.18 | 8.20 | (5.90) | (23.13) | (54.41) |

*Source: Economic Regulation Authority, Final Decision on Proposed Revisions to the Access Arrangement for the Mid-West and South-West Gas Distribution Systems, 10 September 2015, p. 164.*

[450] Economic Regulation Authority, *Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024*, 18 April 2019, p. 162.

1535. The ERA recalculated estimated taxable income for each regulatory year in AA4 to update for any changes in the debt risk premium and actual operating expenditure over the period. Following variations to reference tariffs effective from 1 January 2019, the ERA determined that an accrued tax loss of $51.92 million (nominal) should be deducted against net taxable income calculated for the first regulatory year of AA5.

1536. The estimated taxable income (net of tax losses) calculated by the ERA in its draft decision for each regulatory year in AA5 is set out in Table 142.

**Table 142: ERA's draft decision estimated taxable income for AA5 ($ million nominal)**

| | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Estimated taxable income | 13.38 | 12.30 | 13.05 | 14.36 | 16.35- |
| Carried forward tax loss | (51.92) | (38.55) | (26.25) | (13.20) | 0.00 |
| Estimated taxable income (Net of tax losses) | (38.55) | (26.25) | (13.20) | 1.16 | 16.35 |

*Source: Economic Regulation Authority, Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024, 18 April 2019, p. 164.*

### *Estimated cost of corporate income tax*

1537. The ERA's draft decision calculation of the estimated cost of corporate income tax (net of imputation credits) for each regulatory year in AA5 is set out in Table 143.[451]

[451] The calculations would be revised annually as part of the tariff variation process that includes an update to the debt risk premium.

**Table 143: ERA's draft decision calculation of the estimated cost of corporate income tax for AA5 ($ million nominal)**

| | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| **Revenue** | | | | | |
| Tariff revenue (smoothed) | 166.52 | 169.70 | 172.07 | 174.49 | 177.35 |
| Prudent discount revenue | 0.16 | 0.16 | 0.16 | 0.16 | 0.15 |
| Ancillary service revenue | 3.52 | 3.56 | 3.60 | 3.64 | 3.69 |
| **Total revenue** | **170.20** | **173.42** | **175.83** | **178.29** | **181.19** |
| **Expenses** | | | | | |
| Operating expenditure | (64.11) | (65.16) | (66.62) | (68.36) | (69.23) |
| Tax depreciation | (35.02) | (36.65) | (37.21) | (37.68) | (38.07) |
| Debt servicing costs | (57.70) | (59.30) | (58.95) | (57.90) | (57.54) |
| **Total expenses** | **(156.83)** | **(161.11)** | **(162.78)** | **(163.93)** | **(164.84)** |
| **Tax** | | | | | |
| Estimated taxable income | 13.38 | 12.30 | 13.05 | 14.36 | 16.35 |
| Carried forward tax loss | (51.92) | (38.55) | (26.25) | (13.20) | 0.00 |
| Estimated taxable income (net of tax loss) | (38.55) | (26.25) | (13.20) | 1.16 | 16.35 |
| Estimated cost of corporate income tax | 0.00 | 0.00 | 0.00 | 0.35 | 4.90 |
| Value of imputation credits | 0.00 | 0.00 | 0.00 | (0.17) | (2.45) |
| **Estimated cost of corporate income tax** | **0.00** | **0.00** | **0.00** | **0.17** | **2.45** |

*Source: Economic Regulation Authority, Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024, 18 April 2019, p. 164.*

1538. The ERA required ATCO to amend its calculation of income tax and tax depreciation methods in accordance with draft decision required amendment 11.

> **Draft Decision Required Amendment 11**
>
> ATCO must amend its calculation of income tax and tax depreciation methods as follows:
>
> - Amend the asset lives for regulators and secondary gate stations to be capped to 20 years from 1 January 2020 as set out in Table 76 of [the] draft decision [Table 138 of this final decision].
> - Amend the depreciation method to the diminishing value method for new assets from 1 January 2020.
> - Amend the estimated cost of corporate income tax in accordance with Table 79 of [the] draft decision [Table 143 of this final decision].

## *ATCO's response to the draft decision*

1539. ATCO did not amend its calculation of the estimated cost of corporate income tax for each regulatory year in AA5 in accordance with Table 79 of the draft decision (Table 143 of this final decision).

1540. ATCO used the formula in rule 87A to calculate the estimated cost of corporate tax for each regulatory year in AA5.

1541. ATCO applied a value for the expected statutory income tax rate for each regulatory year in AA5 of 30 per cent, as consistent with expectations for the statutory company tax rate over the AA5 period.[452]

1542. ATCO revised the value for allowed imputation credits from 0.34 to 0.5, so that it conformed with the binding rate of return guidelines.[453] [454]

1543. ATCO did not revise the method for calculating estimated taxable income for each regulatory year in AA5 and so used the same method that applied in AA4. Specifically:

| | |
|---|---|
| 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 (consistent with the rate of return assumption) 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. [455] |

1544. For reasons outlined in previous chapters of this final decision, ATCO did not accept:

- Forecasts for operating expenditure to be undertaken for each regulatory year in AA5.
- Actual capital expenditure undertaken in AA4, used to calculate the opening value of the tax asset base in AA5 (2020).
- Forecast capital expenditure for AA5, used to calculate the opening value of the tax asset base for the remaining regulatory years in AA5 (2021 to 2024).

1545. ATCO's calculation of the estimated cost of corporate income tax for each regulatory year in AA5 is set out in Table 144.

[452] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 205.

[453] Economic Regulation Authority, *Rate of Return Guidelines (2018) Meeting the requirements of the National Gas Rules*, 18 December 2018, pp. 39–40.

[454] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 205.

[455] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 220.

**Table 144: ATCO's amended estimates for the cost of corporate income tax in AA5 ($ million nominal)**

| | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Estimated taxable income | 17.2 | 13.8 | 12.1 | 10.5 | 10.7 |
| Tax payable | 5.2 | 4.1 | 3.6 | 3.2 | 3.2 |
| Value of imputation credits | (2.6) | (2.1) | (1.8) | (1.6) | (1.6) |
| **Estimated corporate income tax** | **2.6** | **2.1** | **1.8** | **1.6** | **1.6** |

*Source: ATCO, 2020-24 Revised Plan (Access Arrangement Information), p. 220, Table 13.7*

### *Tax asset lives*

1546. ATCO's revisions to the tax lives for asset classes initially proposed for the purpose of calculating the tax asset base in AA5 are set out in Table 145.

**Table 145: ATCO's proposed and amended tax lives (years)**

| Asset class | AA5 tax life (Initial proposal) | AA5 tax life (Revised proposal) |
|---|---|---|
| High pressure mains –steel | 20 | 20 |
| High pressure mains - PE | 20 | 20 |
| Medium and low pressure mains | 20 | 20 |
| **Regulators** | **40** | **20** |
| **Secondary gate stations** | **40** | **20** |
| Buildings | 40 | 40 |
| **Meter and service pipes** | **25** | **15** |
| Equipment and vehicles | 10 | 10 |
| **Information technology: in house software** | **4** | **5** |
| **Information technology: miscellaneous** | **4** | **4** |
| Land | - | - |
| Equity raising cost | 5 | 5 |
| **Telemetry** | **10** | **10** |
| **Historical asset categories (No longer used for new expenditure)** | | |
| Medium pressure mains | 20 | 20 |
| Low pressure mains | 20 | 20 |

*Source: ATCO, 2020-24 Revised Plan (Access Arrangement Information), p. 207.*

1547. ATCO amended the tax lives for regulators and secondary gate stations purchased from 1 January 2020 to reflect the 20-year statutory caps pertaining to those tax asset classes under the Commissioner for Taxation's Ruling for the gas supply industry (TR2018/4).[456]

1548. ATCO submitted that the asset class for Information Technology, as identified in its initial proposal (see Table 134) and the ERA's draft decision (see Table 138), should be divided into two more narrowly defined asset classes to reflect differences in the tax lives for:

- In house software, of five years, which ATCO indicated was consistent with Section 40.95(7) of the *Income Tax Assessment Act 1997*.
- Miscellaneous hardware, of four years, which ATCO considered was consistent with the asset class broadly defined as Information Technology in the ERA's draft decision.

1549. ATCO submitted that all information technology projects included with forecast capital expenditure proposed for AA5 would be classified as in-house software for taxation purposes.

1550. ATCO noted that most of its information technology hardware was provided on a fee-for-service arrangement by a service provider (WIPRO) and therefore was included in its forecast operating expenditure proposed for AA5.

1551. ATCO submitted that a separate asset class for miscellaneous hardware would capture approximately $100,000 of capital expenditure including items purchased outside of the information technology project budget (such as mobile phones).

1552. ATCO corrected a typographical error in its initial proposal by revising the tax asset life for Meter and Service Pipes from 25 to 15 years. ATCO submitted that a tax asset life of 15 years was applied in its underlying modelling of the tax asset base in AA4 and AA5.

### *Immediate expensing of refurbishment capital expenditure*

1553. As requested by the ERA in its draft decision, ATCO provided additional information on:[457]

- Its current taxation policy for refurbishment capital expenditure.
- The amount of refurbishment capital expenditure that would be undertaken in the AA5 period.

#### *Current taxation policy*

1554. ATCO submitted that its current taxation policy was to immediately expense refurbishment capital expenditure provided that it did not:

- Give rise to an overall improvement in the output, performance efficiency or effective life of the asset as compared to the original state at the point of purchase.
- Relate to an improvement of the asset.

[456] Australian Taxation Office, *Income tax: effective life of depreciating assets*, Taxation Ruling (TR 2019/5), 1 July 2018, which replaced TR 2019/5.

[457] ATCO, 2020-24 Revised Plan (Access Arrangement Information), p. 216.

1555. ATCO noted that its current taxation policy was also consistent with its accounting treatment for refurbishment capital expenditure.

***Refurbishment capital expenditure in AA5***

1556. ATCO submitted that there was no proposed expenditure in AA5 that would be considered refurbishment capital expenditure under its current policy.

### *Tax depreciation method*

1557. ATCO did not use the diminishing value method to calculate tax depreciation for new assets purchased from 1 January 2020.

1558. ATCO noted that the ERA had already considered using the diminishing value method as an efficient regulatory benchmark for tax depreciation in its draft and final decisions for AA4. ATCO submitted that the ERA had ultimately determined that the straight line method would be "in the long-term interests of consumers and consistent with the national gas objective."[458]

1559. ATCO submitted that there was no reason for the ERA to shift from the position stated in its final decision for AA4, as set out below:

> …The Authority has decided to accept ATCO's adoption of the straight line method to depreciate new capital expenditure in its TAB after 1 July 2014 for the following reasons:
>
> - The Authority has sought and obtained evidence from ATCO that it has and continues to adopt straight line depreciation in its tax returns. The Authority considers that ATCO has the incentive to select the most efficient tax depreciation method, particularly during the pre-tax regime.
> - The Authority now considers 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 methodology that achieves this, based on its circumstances. In a neutral NPV context, and in line with the National Gas Objective, the benchmark efficient entity would also safeguard the long term interests of consumers through making sure that costs are evenly spread out through the lives of assets.[459]

1560. ATCO considered that the ERA's draft decision appeared to be based on the finding in the AER's Review of the Regulatory Tax Approach that privately-owned entities used the diminishing value method to calculate tax depreciation for more than 60 per cent of assets by value in their actual tax returns.[460]

1561. For reasons set out at paragraphs 1562 to 1594, ATCO submitted that:

- Use of the straight line method to depreciate new assets purchased from 1 January 2020 would best meet the national gas objective and Revenue and Pricing Principles.[461]

[458] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 208.
[459] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 208.
[460] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 208.
[461] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 208 and 215.

- Use of the diminishing value method, rather than the straight line method, did not necessarily satisfy the national gas objective to a greater degree.[462]

***The diminishing value method may not be adopted by the benchmark efficient entity***

1562. ATCO considered that the recommendation in the AER's Review of the Regulatory Tax Approach that the diminishing value method should always be used as the efficient benchmark to calculate tax depreciation in its regulatory models, "appear[s] to presuppose that the DVM [diminishing value method] will always be the best choice for taxpayers in minimising income tax liabilities".[463]

1563. ATCO submitted that the assumption that the diminishing value method would always be chosen by the benchmark efficient entity to minimise its corporate income tax liabilities was not evidence-based or reasonable. In contrast, ATCO submitted that it would be reasonable to assume that the benchmark efficient entity would seek to minimise tax liabilities to the extent permissible under complex tax law and, in doing so, would adopt the straight line method to depreciate all assets for taxation purposes.[464]

1564. ATCO submitted evidence from the AER's review that a "material proportion" of privately owned networks "operating under strong cost efficiency incentives" have adopted the straight line method in actual tax returns as part of an efficient tax management strategy.[465]

1565. ATCO highlighted the expert opinion of its consultant, Ernst and Young, initially submitted to the ERA in 2014 in response to the draft decision for AA4[466] and then re-submitted for further consideration in 2019 in response to the draft decision for AA5,[467] which was:

> … the diminishing value method is an option under tax law. If the ERA is correct by arguing that a benchmark efficient entity always adopts the diminishing value method, this leads to an absurd outcome that the choice of the depreciation methods becomes effectively redundant for federal taxpayers as a broad collective. The ERA approach appears to presuppose that the diminishing value method will always be the best choice for federal taxpayers in minimising their income tax liabilities. However, such a presumption is unlikely to be correct in all circumstances. Whilst the diminishing value method provides larger tax depreciation at an early stage of the effective life of a depreciable asset in comparison with the straight line method, this is not the only fact for federal taxpayers to determine a choice of the tax depreciation methods. There are other relevant factors such as one described at Subparagraph d below ...
>
> d. The diminishing value method results in an undeducted amount remaining at the end of the effective life of a depreciable asset whereas there is no such undeducted amount under the straight line method. Given these characteristics of the depreciation methods and the size of the capital investments, infrastructure taxpayers will generally choose the method that provides the better after tax return based on discontinued [sic] cash flows. The assumption that the diminishing value

462 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 208.

463 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 209.

464 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 209.

465 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 209.

466 ATCO, *Access Arrangement Information, 1 July 2014-31 December 2019 (AA4), Appendix 26*, 3 April 2014; and ATCO, *Response to the ERA's Draft Decision on required amendments to the Access Arrangement for the Mid-West and South-West Gas Distribution System*, Appendix 12.4, 1 December 2014.

467 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, Appendix 13.000, 12 June 2019, p. 220.

> method provides the best outcome in all circumstances is false. This choice can be influenced by many factors including any disparity between the economic life of the asset as compared to the effective life of the asset for tax purposes.[468]

1566. Further, ATCO considered that the selection of a single, low-cost benchmark to calculate tax depreciation was at odds with the ERA's approach to calculating other variables in the building block model where revealed costs are used as an incentive mechanism,[469] including:

- The cost of debt, which was based on the average observed credit rating of the benchmark firm rather than the observed credit rating that generated the lowest cost over time. [470]
- Operating expenditure, which was based on the revealed operating expenditure for each firm unless this was materially different to the aggregation of the lowest cost practices observed across the industry.[471]

1567. ATCO submitted the ERA should consider establishing the straight line and diminishing value methods as regulatory efficient benchmarks to calculate tax depreciation "to reflect the proportions of the *actual* use of these depreciation approaches."[472]

***The diminishing value method gives rise to intergenerational inequity***

1568. ATCO submitted that the use of the diminishing value method as an efficient regulatory benchmark to calculate tax depreciation would give rise to intergenerational inequity and, therefore, would not be aligned to the achievement of the national gas objective.[473]

1569. Based on a simple stylised model, as set out in Figure 16 to Figure 18, ATCO examined the tariff profiles that would be computed as a result of using different combinations of the straight line and diminishing value method in the calculation of the regulatory and tax asset base, given the constraint imposed by the NPV=0 principle.

1570. On the basis of this analysis, ATCO deduced:[474]

- If the straight line method was used in the calculation of the regulatory and the tax asset base, then all consumers would pay the same amount for services delivered at any stage of the asset's life (see Figure 16).
- If the straight line method was used in the calculation of the regulatory asset base and the diminishing value method was used in the tax asset base, then consumers delivered services in the early years of the asset's life would pay less than consumers delivered services in the later years (see Figure 17).
- If the diminishing value method was used in the calculation of the regulatory asset base and the tax asset base, then consumers delivered services in the

[468] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 210.
[469] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 209.
[470] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 209.
[471] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 209.
[472] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 209.
[473] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 213.
[474] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 211-213.

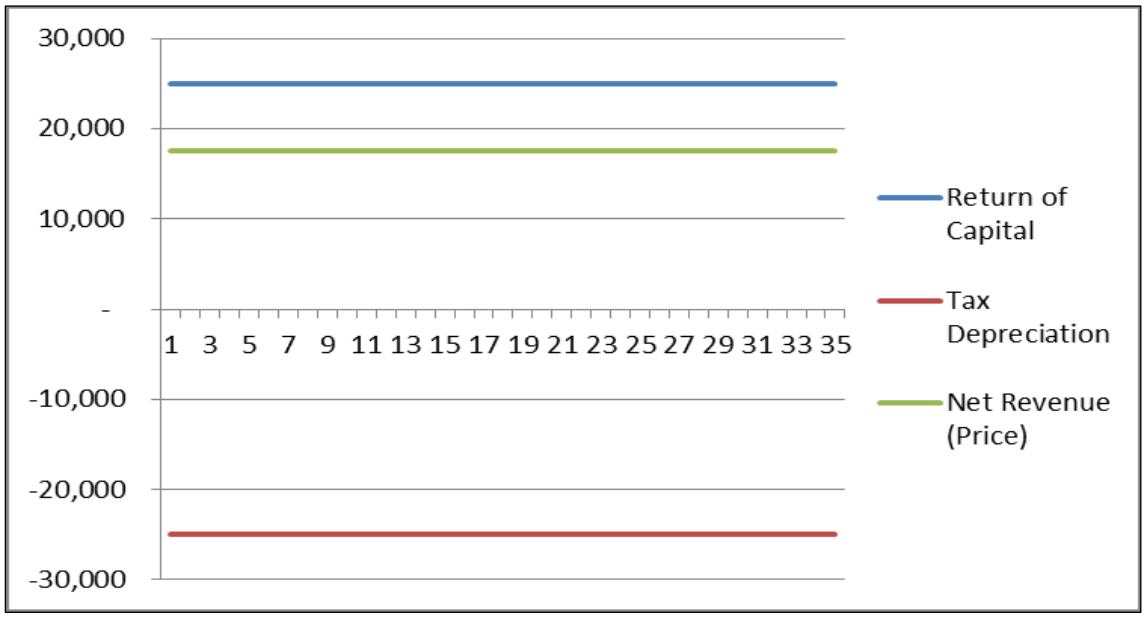
early years of the asset's life would pay more than consumers delivered services in the later years (see Figure 18).

1571. ATCO concluded that the use of the straight line method to calculate depreciation in the regulatory and tax asset "best aligns cost recovery with usage of services, irrespective of the age of the underlying asset."[475] ATCO stated:

> As can be seen [from Figure 14 of this final decision], the inherent profile is that of consistent cost recovery over the service life of an asset with customers paying an equal share at all stages of the asset's life.[476]

1572. ATCO submitted that the issues before the ERA were complex and due consideration must be given to the long-lasting effects associated with the selection of a single, sector-wide regulatory efficient benchmark.

**Figure 16: Straight line method (regulatory asset base and tax asset base)**

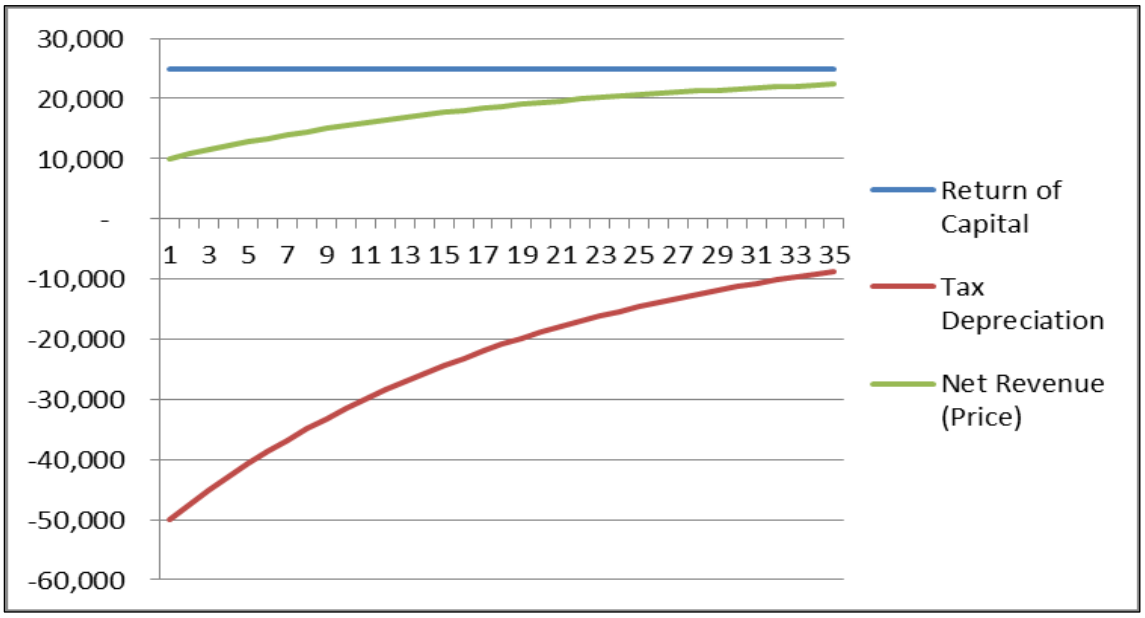



*Source: ATCO, 2020-24 Revised Plan (Access Arrangement Information), p. 211.*

[475] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 210.

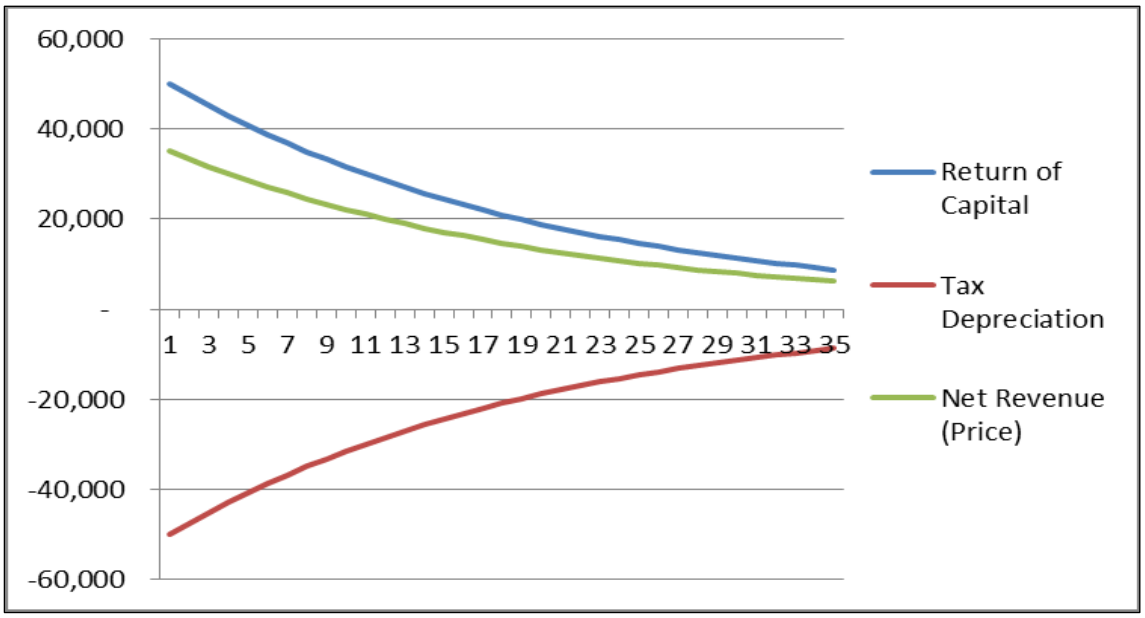
[476] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 211.

**Figure 17: Straight line method (regulatory asset base) and diminishing value method (tax asset base)**




*Source: ATCO, 2020-24 Revised Plan (Access Arrangement Information), p. 211.*

**Figure 18: Diminishing value method (regulatory asset base and tax asset base)**




*Source: ATCO, 2020-24 Revised Plan (Access Arrangement Information), p. 211.*

1573. In this context, ATCO contended that the ERA had not appropriately recognised the inherent intergenerational inequity in tariff profiles that would be computed using the diminishing value method to calculate tax depreciation. ATCO submitted that the ERA's consideration of the tariff profiles in Figure 16 to Figure 18 would be particularly important for gas distribution networks where average demand for services was declining, or expected to decline, over time.[477]

[477] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 213.

1574. Specifically, ATCO considered that the ERA's position that ongoing investment in new capital assets with different tax lives would smooth the profile of tax depreciation across time periods would only hold if both the quantum of capital investment and acquisition of new assets were identical year-on-year. ATCO indicated that this pattern of investment would not accord with commercial reality, as evident from historical investment in the gas distribution system.[478]

***The straight line method has a smoothing effect on gas prices***

1575. ATCO submitted that the straight line method would be an efficient regulatory benchmark to calculate tax depreciation that will best meet the long-term interests of consumers because it provides for constant tax deductions and supported price stability over time.[479]

1576. As evidence, ATCO referred to:

- The different profiles of tax depreciation under the straight line and diminishing value method, as illustrated in Figure 6.5 of the AER's discussion paper for the Review of the Regulatory Tax Approach (reproduced at Figure 19 of this final decision).[480]
- The expert opinion of Ernst and Young, initially submitted to the ERA in 2014 in response to the draft decision for AA4 and then re-submitted for further consideration in 2019 in response to the draft decision for AA5, which was that the straight line method for tax depreciation contributes to a stable pricing path, both within and between access arrangement periods.[481, 482]

1577. ATCO considered that the tax depreciation method selected as the regulatory efficient benchmark should ensure consumers received efficient pricing signals, and that price movements attributed to differences in taxation arrangements, or circumstances, for individual firms should be avoided.[483]

1578. ATCO also noted that stakeholders participating in its *Voice of Consumers program* have indicated that consumers value price stability.[484]

[478] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 213.

[479] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 213.

[480] *Australian Energy Regulatory, Review of regulatory tax approach (Discussion Paper), November 2018, p. 65.*

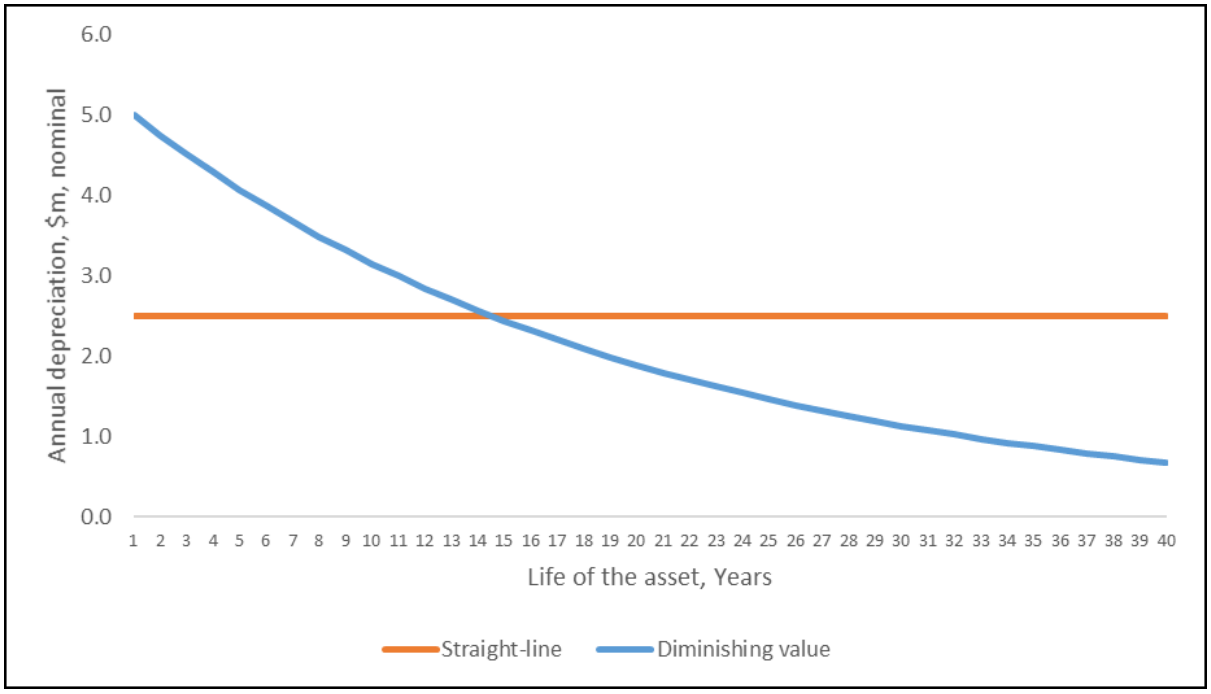
[481] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 213.

[482] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, Attachment 13.100 Ernst & Young Tax Opinion from AA4, 12 June 2019, p. 213; and ATCO, *Access Arrangement Information, Appendix 26: Review of regulated tax asset base for regulated revenue purposes*, 3 April 2014.

[483] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 213.

[484] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 210.

**Figure 19: Taxation depreciation ($ million nominal) under straight line and diminishing value methods**




*Source: Australian Energy Regulatory, Review of regulatory tax approach (Discussion Paper), November 2018, p. 65.*

***Entities in mining, energy and water sectors may choose the straight line method***

1579. ATCO submitted that the recommendation in the AER's Review of the Regulatory Tax Approach that the diminishing value method should be used as an efficient regulatory benchmark in the regulatory model assumes that the benchmark entity will always be in a tax payable position.

1580. ATCO submitted that the AER's conclusion would be incorrect if the benchmark efficient entity was in a tax loss position. Further, ATCO submitted that, while the regulatory tax model accommodates accrued tax losses, it did not consider risks associated with the preservation of accumulated tax losses.

1581. ATCO considered that an entity can only carry forward accrued tax losses if the continuity of ownership or business continuity tests are satisfied,[485] which ATCO stated was not "without risk"[486] and subject to future expectations about the entity's ownership structure and business that cannot be ascertained with certainty at the time tax losses are incurred.[487]

1582. ATCO considered that the benchmark efficient entity will have a "natural preference"[488] to adopt the straight line method (over the diminishing value method)

[485] Under Section 165 of the *Income Tax Assessment Act 1*997, the company must maintain more than 50 per cent continuity of ownership throughout the ownership test period, and carried on the same business or similar business since the tax loss was incurred.

[486] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 215.

[487] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 214.

[488] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 215.

if it reduces the quantum and risks of tax losses that would be carried forward and maximises the benefits of the tax shield against assessable income in future years.[489]

1583. ATCO submitted that the tax depreciation method adopted by the benchmark efficient entity should "place significant weighting on, and have regard to, entities that are operating in tax loss positions."[490]

1584. In this context, ATCO submitted that the benchmark efficient entity would fall in the mining, energy and water industry sector, as classified by the Australian Tax Office (ATO) in its annual Corporate Tax Transparency Report, which provides information on the income tax returns of the largest corporate entities operating in Australia.

1585. ATCO provided evidence from the ATO report for 2016/17 to indicate that a significant proportion of the largest corporate entities operating in the Australian mining, energy and water industry segments had nil tax payable positions over the 2015, 2016 and 2017 income years and, therefore, were operating in tax loss positions over this period.[491]

1586. Further, ATCO noted that many entities operating in the mining, energy and water industry generated both accounting and tax losses in the early stages of significant infrastructure projects.

***Straight line method is mandated for some asset classes***

1587. ATCO submitted that the use of the diminishing value method as an efficient regulatory benchmark to calculate tax depreciation for all new assets purchased from 1 January 2020 would be inconsistent with the *Income Tax Assessment Act 1997.*

1588. ATCO submitted that, under the *Income Tax Assessment Act 1997*, the benchmark efficient entity would be compelled to use the straight line method to calculate tax depreciation for some asset classes, including for assets purchased from 1 January 2020.[492]

1589. ATCO considered that this point was acknowledged by the AER's consultant, PricewaterhouseCoopers, in the expert opinion prepared for the Review of the Regulatory Tax Approach, as set out below:

> … except in respect of intangible assets or capital works expenditure captured by Division 43 of the ITAA 1997 that are required to be deducted for tax purposes on a straight line basis …[493]

1590. ATCO submitted that maintaining the straight line method as the efficient regulatory benchmark to calculate tax depreciation for all asset classes in the regulatory model would avoid the additional complexity associated with the application of two different tax depreciation methods, including for assets purchased from 1 January 2020, as dependent on asset classes.[494]

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489 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 214.

490 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 214.

491 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 215.

492 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 215.

493 PricewaterhouseCoopers, *AER Tax Review 2018 Expert Advice*, 26 October 2018.

494 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 215.

***Practical difficulties with switching to the diminishing value method***

1591. ATCO considered that the ERA would need to consider the practical difficulties associated with the implementation of changes to the tax depreciation method for new assets purchased from 1 January 2020.[495]

1592. In addition, ATCO considered that the ERA had not addressed the issue that, under the diminishing value method, the value of the asset was not fully written off to zero at the end of its economic life. In this context, ATCO noted that the AER addressed this issue by writing the asset off to zero in the final year of its economic life.[496]

1593. ATCO submitted that the use of the diminishing value method as an efficient regulatory benchmark would place an additional burden on the business, including a "significant"[497] resource commitment. Further, ATCO submitted that any additional burden would need to be factored into forecast regulatory costs for AA5, which would ultimately be paid by consumers.

1594. So, ATCO considered that a change in the tax depreciation method for assets purchased from 1 January 2020 would be counterintuitive to the actions of the benchmark efficient entity that would seek to adopt efficient tax practices, within the boundaries of tax law, at minimum cost to resources.

### *Tax asset base*

1595. ATCO did not revise its calculation of the actual tax asset base for AA4 or the forecast tax asset base for AA5 in accordance with the ERA's draft decision required amendment.

1596. As noted, and for reasons outlined in previous chapters of this final decision, ATCO did not use the ERA's calculations for:

- Actual capital expenditure undertaken in AA4, used to calculate the opening value of the tax access base in AA5 (2020).
- Forecast capital expenditure for AA5, used to calculate the opening value of the tax asset base for the remaining regulatory years in AA5 (2021 to 2024).

1597. For reasons outlined at paragraphs 1582 to 1594 of this chapter, ATCO used the straight line method for calculating tax depreciation.

1598. The actual tax asset base and associated depreciation calculated by ATCO for each regulatory year in AA4 is set out in Table 146.

[495] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 216.

[496] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 216.

[497] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 216.

**Table 146: ATCO's amended actual tax asset base for AA4 ($ million nominal)**

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|
| Opening tax asset base | 467.2 | 483.3 | 509.0 | 542.8 | 577.3 | 614.6 |
| Capital expenditure | 39.2 | 74.5 | 86.5 | 88.1 | 91.5 | 86.5 |
| Tax depreciation | (23.0) | (48.8) | (52.5) | (53.4) | (53.7) | (57.0) |
| Asset disposals | 0.00 | 0.00 | (0.2) | (0.2) | (0.5) | 0.0 |
| **Closing value** | **483.3** | **509.0** | **542.8** | **577.3** | **614.6** | **644.1** |

*Source: ATCO, 2020-24 Revised Plan (Access Arrangement Information), p. 219.*

1599. The forecast tax asset base and associated depreciation calculated by ATCO for each regulatory year in AA5 is set out in Table 147.

**Table 147: ATCO's amended forecast tax asset base for AA5 ($ million nominal)**

| | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Opening tax asset base | 644.1 | 679.9 | 703.2 | 727.7 | 744.0 |
| Capital expenditure | 97.0 | 88.6 | 91.9 | 86.5 | 89.8 |
| Tax depreciation | (61.2) | (65.2) | (67.4) | (70.2) | (73.1) |
| Asset disposals | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Closing value** | **679.9** | **703.2** | **727.7** | **744.0** | **760.8** |

*Source: ATCO, 2020-24 Revised Plan (Access Arrangement Information), p. 220.*

### *Carry forward tax losses*

1600. ATCO did not carry forward the accrued tax loss of $51.93 million (nominal), which the ERA considered should be deducted from estimated taxable income calculated for the first regulatory year of AA5.

1601. ATCO submitted that the tax loss calculated by the ERA in the final regulatory year of AA4 was due to the price path determined by the ERA for that period, which resulted in an uneven revenue profile to accommodate the interval of delay under rule 92 of the NGR.[498]

1602. ATCO considered that a tax loss may not have been calculated in the final regulatory year of AA4 if a different price path had been determined.[499]

1603. ATCO submitted that a tax loss should not be carried across access arrangement periods because this would:

- Not be legally permissible under the NGR.[500]

[498] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 216.

[499] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 216.

[500] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, pp. 216-217.

- Distort the calculation of the taxation building block and lead to inefficient regulatory outcomes; which are not in the long-term interests of consumers and, therefore, not aligned to the national gas objective.[501]

***Not permissible under the NGR***

1604. ATCO submitted that there was no express provision in the NGR that allowed the ERA to carry forward tax losses.

1605. Firstly, ATCO submitted that the specific wording of rule 87A required the estimated cost of corporate income tax to be forward-looking and calculated with reference to each regulatory year as a stand-alone period. Specifically, ATCO highlighted:

> … The estimated cost of corporate income tax of a service provider **for each regulatory year of an access arrangement period**.
>
> … $ETI_t$ is an estimate of the taxable income **for that regulatory year** …[502]

1606. Secondly, ATCO submitted that there was no mechanism in the NGR that allowed the ERA to carry forward decrements in the form of tax losses. ATCO considered that:

- Rule 76(d) of the NGR provided for increments or decrements that result from the operation of an incentive mechanism.[503]
- In the ERA's decisions that led to the approval of AA4, there was no fixed principle, or reasons provided, for the carry forward of tax losses across the AA4 and AA5 periods.[504]

1607. Thirdly, ATCO submitted that, *prima facie*, "taxable income" in the *Income Tax Assessment Act 1997* refers to income earned in the year, and that this will only be net of tax losses at the discretion of the entity. Specifically, ATCO considered that:

- The benchmark efficient entity had discretion about whether it would deduct a tax loss calculated in an earlier year from any excess in total assessable income over total deductions in the income year (see Section 36-17(2) of the *Income Tax Assessment Act 1997*).[505]
- The tax loss can only be deducted to the extent that it has not already been used, which included being used as a deduction (see Sections 960-20(1) and (2)a of the *Income Tax Assessment Act 1997*).[506]

1608. Hence, ATCO concluded that taxable income "in a year of AA5 cannot be taken to be net of accumulated tax losses from AA4."[507]

***Efficiency considerations***

1609. ATCO submitted that carrying forward the tax loss calculated for the final regulatory year of AA4 would inefficiently distort the calculation of the tax building block in AA5.

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501 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 216-219.
502 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 217.
503 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 217.
504 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 217.
505 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 217.
506 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 217.
507 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 217.

1610. Firstly, ATCO submitted that the tax losses calculated by the ERA for the final three regulatory years of the AA4 period were not representative of the actual tax losses that would have been incurred by a benchmark efficient entity over the same period. Rather, ATCO considered that these tax losses represented the estimated taxable income calculated from the tariff model approved by the ERA for AA4 under rule 92 of the NGR.[508]

1611. Secondly, ATCO submitted that carrying forward the tax loss calculated for the final regulatory year of AA4 would lead to regulatory outcomes in AA5 that were inconsistent with:

- Rule 74 of the NGR, which required forecasts or estimates to be the best under the circumstances and arrived at on a reasonable basis.[509]
- The NPV = 0 principle, under which the present value of the revenue stream for the benchmark entity should match the present value of its expenditure stream.[510]
- The national gas objective, which required regulatory outcomes to be in the long-term interests of consumers.[511]

1612. In this context, ATCO considered that, unlike calculations for the regulatory asset base, the opening value of the tax asset base for any given access arrangement period was established by rolling forward the closing value of the tax asset base for the immediately preceding access arrangement period that, in turn, is re-calculated to reflect actual (rather than forecast) capital expenditure and depreciation incurred over that period.[512]

1613. Hence, ATCO considered that simply carrying forward tax losses calculated for a prior access arrangement period could lead to two outcomes.

- Under-estimation of the tax building block in the current access arrangement period, if actual capital expenditure undertaken in the prior access arrangement period was less than forecast capital expenditure for that period.
  - That is, ATCO considered that the value of the tax loss calculated in the previous access arrangement period would be larger in the current access period because the value of depreciation embodied in the tax loss calculation would be greater than the value of depreciation embodied in the roll forward of the tax asset base.[513]
- Over-estimation of the tax building block in the current access arrangement period, if actual capital expenditure undertaken in the prior access arrangement period was greater than forecast capital expenditure for that period.
  - That is, ATCO considered the value of the tax loss deducted in the current access period would be understated because the value of depreciation

[508] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 217.
[509] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 218.
[510] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 218.
[511] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 218.
[512] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 218.
[513] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 218.

> embodied in the tax loss calculation would be less than the value of depreciation embodied in the roll forward of the tax asset base.[514]

1614. ATCO concluded:

> In both cases [that is, when actual capital expenditure in the prior access arrangement is either greater or less than forecast capital expenditure], the NPV=0 principle is breached, and consumers will pay for a tax expense over time greater than or less than would be incurred by the benchmark efficient service provider.[515]

1615. On this basis, ATCO considered that the final tax loss position for AA4 should be re-calculated using actual, rather than forecast, costs and revenue over that period. Specifically, ATCO stated:[516]

> The ATO does not base its tax assessments on a forecast of costs and revenues, particularly a forecast that could be up to 5 years out of date. Re-estimating the carry forward tax losses position in this way will ensure that the building block tax expense in AA5:
>
> - is the best estimate or forecast in the circumstances arrived at on a reasonable basis (NGR 74); and
> - is the tax building block allowance for the benchmark efficient entity.

1616. Thirdly, ATCO submitted that carrying forward the tax loss calculated for the final regulatory year in AA4 would be contrary to the incentive framework in the NGR and NGL.[517] Specifically, ATCO considered that rolling forward the tax loss accrued in a prior access arrangement period would:

- Reduce the incentive for the entity to minimise taxation costs in the current access arrangement period as no benefit will accrue to the service provider.[518]
- Reduce the incentive for the entity to minimise other tax expenses and increase revenue as taxation expenses increase or tax losses reduce while forecast losses carried forward do not reflect the efficient entity's efforts to become more efficient and increase utilisation of the network to the benefit of all consumers.[519]

1617. Hence, ATCO concluded that "carrying forward tax losses from a prior period is not in the long-term interests of consumers."[520]

### *Estimated cost of corporate income tax*

1618. ATCO's calculation of the estimated cost of corporate income tax (net of imputation credits) for each regulatory year in AA5[521] is set out in Table 148.

[514] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 218.

[515] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 218.

[516] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 219.

[517] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 219.

[518] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 219.

[519] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 219.

[520] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 219.

[521] The calculations would be revised annually as part of the tariff variation process that includes an update to the debt risk premium.

**Table 148: ATCO's amended cost of corporate income tax net of imputation credits for AA5 ($ million nominal)**

| | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| **Revenue** | | | | | |
| Tariff revenue (smoothed) | 175.9 | 180.8 | 185.8 | 190.8 | 196.5 |
| **Expenses** | | | | | |
| Operating expenditure | (66.1) | (68.9) | (72.3) | (74.9) | (76.5) |
| Tax depreciation | (31.4) | (32.9) | (34.0) | (35.2) | (36.2) |
| Interest | (61.2) | (65.2) | (67.4) | (70.2) | (73.1) |
| **Total expenses** | **(158.7)** | **(167.1)** | **(173.7)** | **(180.2)** | **(185.8)** |
| **Tax** | | | | | |
| Estimated taxable income | 17.2 | 13.8 | 12.1 | 10.5 | 10.7 |
| Tax payable | 5.2 | 4.1 | 3.6 | 3.2 | 3.2 |
| Less value of imputation credits | (2.6) | (2.1) | (1.8) | (1.6) | (1.6) |
| **Estimated cost of corporate income tax** | **2.6** | **2.1** | **1.8** | **1.6** | **1.6** |

*Source: Economic Regulation Authority, Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024, 18 April 2019, p.164.*

## *Submissions to the ERA*

1619. The ERA received two submissions that addressed ATCO's initial proposal for estimating the cost of corporate income tax.

- Alinta Energy supported the introduction of a new asset class for telemetry, in recognition of increasing demand for enhanced flow measurement technologies.[522]
- AGL Energy encouraged the ERA to consider the AER's Review of the Regulatory Tax Approach, but did not support any fundamental changes to the calculation of the tax building block unless the ERA considered that ATCO would pay materially less tax to the ATO than estimated over the AA5 period.[523]

1620. No submissions addressed the ERA's draft decision on the estimated cost of corporate income tax, or ATCO's revised proposal.

[522] Alinta Energy, *Submission on proposed revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020-2024*, 14 November 2018, p. 5.

[523] AGL Energy, *Submission on proposed revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020-2024*, 14 November 2018, pp. 3-4.

## *Final decision*

1621. The ERA has assessed ATCO's revised proposal for the estimated cost of corporate income tax for each regulatory year in AA5 against the requirements in rule 87A of the NGR.

1622. The ERA accepts the values that ATCO has used for:

- The statutory income tax rate for each regulatory year in AA5 of 30 per cent, which remains consistent with expectations for the statutory company tax rate the AA5 period.
- Allowed imputation credits of 0.50, which conforms with the binding rate of return guidelines.[524]

1623. The ERA has revised the method that was used to calculate estimated taxable income in its draft decision. Consistent with rules 76 and 92 of the NGR, the ERA considers that the calculation of estimated taxable income should be correctly based on total revenue (unsmoothed) rather than tariff revenue (smoothed). This is because:

- Under Rule 76(c) of the NGR, the estimated cost of corporate income tax is established as a separate building block for the determination of total (unsmoothed) revenue.
- Under Rule 92(2) of the NGR, the tariff variation mechanism used to determine the reference tariff profile over the course of an access arrangement, must be designed to equalise the net present values of forecast revenue from reference services for the access arrangement period with the portion of total revenue (unsmoothed) allocated to reference services for the access arrangement period.

1624. The method used to calculate estimated taxable income in this final decision is:

Unsmoothed total revenue:

| | |
|---|---|
| ***plus*** | revenue from prudent discounts |
| ***plus*** | ancillary service revenue |
| ***minus*** | approved forecast operating expenditure |
| ***minus*** | depreciation of the tax asset base (excluding capital contributions), calculated using the straight line method for assets purchased before 1 January 2020 and the diminishing value method for assets purchased on or after 1 January 2020 |
| ***minus*** | debt servicing costs, calculated by multiplying the debt portion of the opening regulatory asset base by the debt to equity ratio (assumed at 55 per cent) and the ERA's determined nominal cost of debt based on the Rate of Return chapter of this final decision |
| ***equals*** | estimated taxable income. |

1625. For reasons outlined in previous chapters of this final decision, the ERA requires that ATCO amend:

[524] Economic Regulation Authority, *Rate of Return Guidelines (2018) Meeting the requirements of the National Gas Rules*, 18 December 2018, pp. 39–40.

- Forecasts for operating expenditure to be undertaken for each regulatory year in AA5.
- Actual capital expenditure undertaken in AA4, used to calculate the opening value of the tax asset base in AA5 (2020).
- Forecast capital expenditure for AA5, used to calculate the opening value of the tax asset base for the remaining regulatory years in AA5 (2021 to 2024).

1626. The ERA's estimated cost of corporate income tax (net of imputation credits) for each regulatory year in AA5 is set out in Table 149.

**Table 149: ERA's final decision estimated cost of corporate income tax for AA5 ($ million nominal)**

| | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Estimated taxable income | 3.34 | 11.19 | 12.21 | 12.16 | 13.08 |
| Tax payable | 1.00 | 3.36 | 3.66 | 3.65 | 3.93 |
| Value of imputation credits | (0.50) | (1.68) | (1.83) | (1.82) | (1.96) |
| **Estimated corporate income tax** | **0.50** | **1.68** | **1.83** | **1.82** | **1.96** |

### *Tax asset lives*

1627. The tax lives of asset classes approved by the ERA for the purpose of calculating the tax asset base in AA5 are listed in Table 150.

**Table 150: ERA's final decision tax lives (years)**

| Asset class | Tax lives for capital expenditure prior to 1 January 2020 | Tax lives for capital expenditure on or after 1 January 2020 |
|---|---|---|
| High pressure mains –steel | 20 | 20 |
| High pressure mains - PE | 20 | 20 |
| Medium and low pressure mains | 20 | 20 |
| Regulators | 40 | 40 |
| Secondary gate stations | 40 | 40 |
| Buildings | 40 | 40 |
| Meters and service pipes to 31 December 2007 | 25 | 25 |
| Meters and service pipes from 1 January 2008 | 15 | 15 |
| Equipment | 10 | 10 |
| Vehicles | 10 | 10 |
| Information technology | 4 | 5 |
| Telemetry | 10 | 10 |
| Land | 0 | 0 |
| Equity raising cost | 5 | 5 |

1628. ATCO amended the tax lives for regulators and secondary gate stations purchased from 1 January 2020 to reflect the 20-year statutory caps pertaining to those tax asset classes under the Commissioner for Taxation's Ruling for the gas supply industry (TR2019/5).

1629. ATCO submitted that information technology should be split into two narrowly defined asset classes to capture differences in the tax lives that apply to information technology hardware (of four years) and in-house software (of five years).

1630. Based on all available information, the ERA considers that:

- All information technology projects included in the capital asset base would be classified in-house software for taxation purposes.
- A high proportion of ATCO's information technology hardware is supplied under a fee-for-service arrangement by service provider WIPRO and, therefore, appropriately included in forecast operating expenditure.

1631. Given the proportionately low value of information technology hardware in the projected capital asset base for AA5, the ERA considers that the complexity of splitting information technology into two narrowly-defined asset classes for the purposes of calculating the estimated cost of corporate income tax would impose regulatory costs (including through assessment, reporting and monitoring) in excess of benefits. The ERA considers that to do so would be inconsistent with the national

gas objective, and the ERA therefore does not propose to split information technology into two asset classes.

1632. Nonetheless, the ERA accepts that, under Section 40-95(7) of the *Income Tax Assessment Act 1997*, the statutory effective life for in-house software is five years and that this is different to the tax life of four years that applied to all assets generically classified as information technology in the final decision for AA4 and draft decision for AA5.

1633. Hence, on the basis that a substantial proportion of ATCO's forecast capital expenditure on information technology in AA5 will relate to purchases of in-house software, the ERA amends the tax life for information technology to five years.

1634. The value and nature of capital expenditure included as information technology in the capital asset base will be reviewed in subsequent access arrangement periods, with a view to determining whether:

- A generic tax life of five years is appropriate for this asset class, as defined broadly.
- More narrowly defined asset classes, which capture differences in the tax lives for different types of information technology capital expenditure, are justified.

### *Immediate expensing of refurbishment capital expenditure*

1635. In response to the ERA's information request in the draft decision, ATCO submitted that:

- Its current taxation policy was to immediately expense refurbishment expenditure as an operating expense, provided that the refurbishment activity does not improve the efficiency or effective life of the asset.
- There was no refurbishment expenditure in the projected capital asset base for AA5.

1636. The ERA has reviewed ATCO's revised forecasts for capital expenditure in each regulatory year of AA5. Based on all available information, the ERA confirms that ATCO will not be undertaking refurbishment activities for the purpose of improving the efficiency or effective life of the asset over this access arrangement period.

1637. However, industry stakeholders contributing to the AER's 2018 Review of the Regulatory Tax Approach acknowledged that it was possible for an entity to treat refurbishment expenditure as an immediately-deductible operating expense in actual tax returns while capitalising these expenses in the tax asset base for regulatory purposes.

1638. Hence, there may be an incentive for ATCO and other service providers to capitalise all refurbishment expenses in order to reduce the net present value of tax depreciation in the calculation of net taxable income and, therefore, increase the net present value of the estimated cost of corporate income tax in the calculation of tariff revenue.

1639. On this basis, the ERA considers that ATCO will need to separately identify refurbishment capital expenditure in future access arrangement periods and explain how refurbishment activities submitted as a capital expense improve the efficiency or effective life of the asset.

### *Tax depreciation method*

1640. ATCO has not used the diminishing value method to calculate tax depreciation for assets purchased from 1 January 2020, determined by the ERA in the draft decision to be the efficient regulatory benchmark.[525] ATCO considered that the diminishing value method is not in the long term interests of consumers. Rather, ATCO used the straight line method.

1641. In the draft decision, as summarised at paragraphs 1520 to 1525, the ERA considered evidence and analysis contained in:

- Its draft decision and final decision for AA4.[526, 527]
- ATCO's response to the draft decision for AA4, including advice provided by ATCO's consultant, Ernst & Young.[528, 529]
- The AER's 2018 Review of the Regulatory Tax Approach, which identified alternative regulatory treatments that would improve the measurement of efficient tax costs, including expert opinions provided by the AER's consultant, Dr Martin Lally and PricewaterhouseCoopers.[530, 531, 532]
- ATCO's submission in response to the AER's draft report for the Review of the Regulatory Tax Approach.[533]

1642. For this final decision, the ERA has:

- Considered ATCO's response to the draft decision, as summarised at paragraphs 1557 to 1594.
- Re-considered the expert opinion of ATCO's consultant, Ernst & Young; which ATCO initially submitted in 2014 in response to the draft decision for AA4 and re-submitted in 2019 in response to the draft decision for AA5.[534]

1643. To make this final decision, the ERA re-calculated ATCO's estimated taxable income using both the diminishing value and straight line method. Using the diminishing value method to depreciate new assets from 1 January 2020, the ERA calculated that ATCO would accrue tax losses in AA5.

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525 See the subsection on the Projected Capital Base in the Revenue and Tariffs Chapter of this Final Decision.

526 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.

527 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, pp. 453-455.

528 ATCO, *Response to the ERA's Draft Decision on required amendments to the Access Arrangement for the Mid-West and South-West Distribution System*, 27 November 2014, pp. 231-238.

529 ATCO, *Access Arrangement Information, Appendix 26: Review of regulated tax asset base for regulated revenue purposes*, 3 April 2014.

530 Australian Energy Regulator, *Final Report: Review of regulatory tax approach (Final Report)*, 17 December 2018.

531 Lally, M., *Tax Payments versus the AER's Allowances,* 16 June 2018.

532 PricewaterhouseCoopers, *AER Tax Review 2018 Expert Advice*, 26 October 2018.

533 ATCO, *ATCO Submission: Review of Regulatory Tax Approach*, 23 November 2018.

534 ATCO, *Access Arrangement Information, Appendix 26: Review of regulated tax asset base for regulated revenue purposes*, 3 April 2014; and ATCO, *Response to the ERA's Draft Decision on required amendments to the Access Arrangement for the Mid-West and South-West Gas Distribution System*, Appendix 12.4, 1 December 2014.

1644. Under Section 40.65 of *the Income Tax Assessment Act 1997*, an entity generally has a choice between the straight line and diminishing value method to depreciate new assets.[535] The ERA considers that, rather than accrue tax losses, the benchmark efficient entity would choose to adopt the straight line method (over the diminishing value method) to:

- Maximise the benefits of the tax shield against assessable income in future years.
- Reduce risks from the preservation of accrued tax losses, including that an entity may only carry forward accrued tax losses if the continuity of ownership or business continuity tests are satisfied.[536]

1645. On this basis, the ERA determines that ATCO should also use the straight line method to calculate tax depreciation for new assets purchased in the AA5 period.

### *Tax asset base*

1646. The ERA does not accept ATCO's revisions of the actual tax asset base for AA4 or the forecast tax asset base for AA5.

1647. As noted, and for reasons outlined in previous chapters of this final decision, the ERA does not accept ATCO's revised calculations for:

- Actual capital expenditure undertaken in AA4, used to calculate the opening value of the tax access base in AA5 (2020).
- Forecast capital expenditure for AA5, used to calculate the opening value of the tax asset base for the remaining regulatory years in AA5 (2021 to 2024).

1648. The actual tax asset base calculated by ATCO for each regulatory year in AA5 is set out in Table 151.

**Table 151: ERA's final decision actual tax asset base for AA4 ($ million nominal)**

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|
| Opening tax asset base | 467.17 | 483.19 | 503.44 | 531.17 | 559.88 | 591.11 |
| Capital expenditure | 39.07 | 69.04 | 80.12 | 81.65 | 84.41 | 78.84 |
| Tax depreciation | 23.02 | 48.77 | 52.20 | 52.73 | 52.67 | 55.47 |
| Asset disposals | 0.04 | 0.01 | 0.19 | 0.21 | 0.51 | 0.00 |
| **Closing value** | **483.19** | **503.44** | **531.17** | **559.88** | **591.11** | **614.48** |

1649. The forecast tax asset base calculated by the ERA for each regulatory year in AA5 is set out in Table 152.

[535] Compared to, for example, under Section 40.72 and Division 43 of the *Income Tax Assessment Act 1997,* where an entity is required to use the straight line method to calculate tax depreciation on intangible assets and capital works.

[536] Under Section 165 of the *Income Tax Assessment Act 1*997, the company must maintain more than 50 per cent continuity of ownership throughout the ownership test period, and carried on the same business or similar business since the tax loss was incurred.

**Table 152: ERA's final decision forecast tax asset base for AA5 ($ million nominal)**

| | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Opening tax asset base | 614.48 | 643.58 | 664.75 | 683.61 | 700.05 |
| Capital expenditure | 88.13 | 83.77 | 83.27 | 83.33 | 85.76 |
| Tax depreciation | 59.03 | 62.59 | 64.42 | 66.89 | 69.71 |
| Asset disposals | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Closing value** | **643.58** | **664.75** | **683.61** | **700.05** | **716.11** |

### *Carry forward tax losses*

1650. For reasons outlined in paragraph 1623, the ERA has revised the method used to calculate estimated taxable income so that it is correctly based on total revenue (unsmoothed) rather than tariff revenue (smoothed).

1651. Using the ERA's updated method for calculating estimated taxable income (using unsmoothed total revenue), the ERA determines that ATCO does not incur accrued tax losses in the final regulatory year of AA4 and, hence, there is no requirement for ATCO to carry forward tax losses, as calculated in the draft decision.

1652. The estimated taxable income calculated by the ERA for each regulatory year in AA5, based on unsmoothed total revenue, is set out in Table 153.

**Table 153: ERA's final decision estimated taxable income for AA5, based on unsmoothed total revenue ($ million nominal)**

| | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Estimated taxable income | 3.34 | 11.19 | 12.21 | 12.16 | 13.08 |
| Carried forward tax loss | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Estimated taxable income (Net of tax losses)** | 3.34 | 11.19 | 12.21 | 12.16 | 13.08 |

### *Estimated cost of corporate income tax*

1653. The ERA's calculation of the estimated cost of corporate income tax (net of imputation credits) for each regulatory year in AA5 is set out in Table 154.[537]

[537] These calculations will be revised annually as part of the tariff variation process that includes an update to the debt risk premium.

**Table 154: ERA's final decision calculation of the estimated cost of corporate income tax for AA5 ($ million nominal)**

| | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| **Revenue** | | | | | |
| Total (unsmoothed) revenue | 149.09 | 164.10 | 169.93 | 175.57 | 181.57 |
| | | | | | |
| Operating expenditure | 62.21 | 64.41 | 66.52 | 68.96 | 70.46 |
| Tax depreciation | 24.51 | 25.92 | 26.78 | 27.56 | 28.31 |
| Debt servicing costs | 59.03 | 62.59 | 64.42 | 66.89 | 69.71 |
| **Total expenses** | **145.75** | **152.92** | **157.72** | **163.41** | **168.49** |
| | | | | | |
| Estimated taxable income | 3.34 | 11.19 | 12.21 | 12.16 | 13.08 |
| Carried forward tax loss | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Estimated taxable income (Net of tax loss) | 3.34 | 11.19 | 12.21 | 12.16 | 13.08 |
| Estimated income tax payable | 1.00 | 3.36 | 3.66 | 3.65 | 3.93 |
| Value of imputation credits | (0.50) | (1.68) | (1.83) | (1.82) | (1.96) |
| **Estimated cost of corporate income tax** | **0.50** | **1.68** | **1.83** | **1.82** | **1.96** |

**Required Amendment 10**

The estimated cost of corporate income tax must reflect the value in Table 154 of this final decision.

## *Working capital*

1654. Working capital refers to a stock of funds that must be maintained by a service provider to pay costs as they fall due. In circumstances where it is the norm for the costs of providing services to be incurred before the revenues from the provision of services are received, a stock of working capital may need to be derived from a capital investment in the business. The cost of this stock of working capital (that is, the required return on the capital investment) is a cost to the service provider of operating its business and providing services.

1655. The NGL and NGR do not refer to the cost of working capital used by a service provider. Rule 76 of the NGR states that total revenue is to be determined for each regulatory year of the access arrangement period using the building block approach (see paragraph 258). While the cost of working capital is not specifically included as a building block, ATCO has separately included the return on working capital as a line item in its building block calculations (see paragraph 259).

## *ATCO's initial proposal*

1656. ATCO submitted that its working capital referred to a stock of funds that it must maintain to pay costs as they arise and inventory held to meet service requirements within service delivery times.[538]

> The requirement to maintain a stock of funds arises from the misalignment (on average) between incurring the costs of providing services and recovering the revenues associated with the provision of those services. In addition, a stock of materials is held to allow the efficient and timely provision of services. The cost of working capital reflects the return on the capital funds required to be maintained. These costs represent the efficient costs of a business that receives revenue at a different time to when it incurs costs.

1657. ATCO calculated its working capital in accordance with the "working capital cycle model", with updated parameters to reflect current working capital requirements. The parameters (or components) of the model included:[539]

- Inventory
  - ATCO maintained the assumption that an efficient level of inventory is 0.89 per cent of annual capital expenditure. Using expenditure data for 2017, ATCO calculated inventory as a percentage of capital expenditure to be 1.04 per cent. ATCO did not consider the difference to be material to justify a change from the previously used value of 0.89 per cent.
- Creditors
  - ATCO adjusted its creditors assumptions for AA5. The accounts payable creditor days were re-evaluated with consideration to the payment terms for labour costs, general creditors and unaccounted for gas (UAFG). ATCO's calculation of the weighted average creditor days for AA5 was 19 days, which was four days more than the days used for AA4.
- Receivables
  - ATCO re-evaluated the calculation of receivable days to recognise unbilled haulage days that were inadvertently excluded in the calculation for AA4. Unbilled haulage reflects the costs incurred to provide reference services for which revenue has not yet been received. ATCO's calculation of receivables days was 62 days, which was 44 days more than the days used for AA4.

1658. ATCO's updated parameters for AA5 are shown in Table 155. ATCO's initial proposed calculation of its working capital for AA5 was based on these parameters and is shown in Table 156.

[538] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 144.

[539] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 145.

**Table 155: ATCO's working capital parameters**

| Parameter | AA4 (actual) | AA5 (proposed) | Basis of calculation |
|---|---|---|---|
| Inventory as a % of capex | 0.89 | 0.89 | Based on 2017 inventory as a percentage of 2017 capex. |
| Creditors | 15 days | 19 days | Determined from the standard terms of payment to suppliers, labour, and suppliers of UAFG. The amount relates to total expenditure including capex. |
| Receivables | 18 days | 62 days | Determined from the payment terms of our contracts with retailers. |

*Source: ATCO, 2020-24 Plan (Access Arrangement Information), p. 146, Table 16.4.*

**Table 156: ATCO's working capital calculation for AA5**

| Return on Working Capital | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Opening working capital ($ million nominal) | 1.3 | 24.3 | 25.3 | 26.2 | 27.0 |
| WACC (nominal) (%) | 6.03 | 6.03 | 6.03 | 6.03 | 6.03 |
| Return on working capital ($ million nominal) | 0.1 | 1.5 | 1.5 | 1.6 | 1.6 |
| *Deflator to $real 2019* | *1.018* | *1.037* | *1.056* | *1.076* | *1.095* |
| *Return on working capital ($ million real)* | *0.1* | *1.4* | *1.4* | *1.5* | *1.5* |

*Source: ATCO, 2020-24 Plan (Access Arrangement Information), p. 146, Table 16.5.*

## *Draft decision*

1659. ATCO submitted that it calculated the return on working capital using the same working capital model used in AA4, with updated parameters for AA5.

1660. During the AA4 review process, the ERA asked ATCO to clarify how it calculated the individual components of the working capital model (that is, the inventory as a percentage of capital expenditure, creditor and receivable parameters). Based on the explanations provided, the ERA determined that "ATCO had adopted a reasonable method in producing its forecast return on working capital".[540]

> [The] inventory as a percentage of capital expenditure [parameter] was calculated by taking the average of monthly inventory levels from its general ledger for the years of 2011, 2012 and 2013. These were then divided by the actual capital expenditure in each year to determine inventory as a percentage of capital expenditure for each year. These three percentages were then averaged to produce an inventory as a percentage of capital expenditure figure of 0.89 per cent.
>
> [The creditors parameter was calculated by taking] the creditor balances from [ATCO's] general ledger for the 12 month period beginning November 2012 to October 2013 and calculating an average monthly creditor balance. This was then divided by the average

[540] ERA, *Final Decision on Proposed Revisions to the Access Arrangement for the Mid-West and South-West Gas Distribution Systems*, 30 June 2015, pp. 460 to 461.

> of capital expenditure and operating expenditure (excluding UAFG) over the same period to produce the creditor payment days figure of 15 days.
>
> [The receivables parameter was calculated by taking] the receivable balances from [ATCO's] general ledger for the 12 month period beginning November 2012 to October 2013 and calculating an average monthly receivable balance. This was then divided by the total haulage revenue over the same period to produce a receivable days figure of 18 days.

1661. Information to substantiate ATCO's forecast return on working capital for AA5 is contained in ATCO's access arrangement information.[541]

### *Inventory as a percentage of capex*

1662. Using 2017 data, ATCO calculated the inventory as a percentage of capex parameter to be 1.04 per cent. However, ATCO decided to maintain the assumption that an efficient level of inventory was 0.89 per cent of annual capital expenditure. ATCO did not consider the difference (of 0.15 percentage points) to be material to justify amending the value used in AA4.

1663. ATCO's access arrangement information did not indicate any changes to the way in which the parameter was calculated since the ERA's AA4 decision.

1664. ATCO decided to keep the inventory as a percentage of capex parameter as 0.89 per cent (unchanged from AA4) on the basis that the difference was not considered to be material. The effect of the difference was approximately $0.8 million over AA5 (Table 157). The ERA considered ATCO's decision to leave the parameter unchanged from AA4 was not inconsistent with the requirements of the NGR and national gas objective.

**Table 157: Inventory as a percentage of capex forecasts ($ million nominal)**

| Inventory as a % of capex | 2020 | 2021 | 2022 | 2023 | 2024 | Total |
|---|---|---|---|---|---|---|
| 0.89 | 0.937 | 0.943 | 0.943 | 0.978 | 0.987 | **4.789** |
| 1.04 | 1.095 | 1.102 | 1.102 | 1.143 | 1.154 | **5.596** |
| *Difference* | *0.158* | *0.159* | *0.159* | *0.165* | *0.166* | ***0.807*** |

*Source: ATCO, AA5 supporting information – revenue and pricing model.*

### *Creditors*

1665. ATCO calculated the creditors parameter to be 19 days, based on a weighted average of creditor days for labour, non-labour and unaccounted for gas (Table 158).

[541] ATCO, *2020-24 Plan (Access Arrangement Information)*, pp. 144 to 146.

**Table 158: ATCO's calculation of creditor days for AA5**

| Creditor element | Weighting (%) | Days |
|---|---|---|
| Labour | 32 | 1.7 |
| Non-labour | 64 | 27 |
| Unaccounted for gas | 4 | 44 |
| **Total creditor days** | | **19** |

*Source: ATCO, 2020-24 Plan (Access Arrangement Information), p. 145, Table 16.2.*

1666. Information supporting ATCO's calculation of creditor days was limited to the access arrangement information, which is reproduced in the above table. The information suggested a change to the way in which the parameter was calculated. ATCO's calculation for AA5 was based on a weighted average of creditor days. The ERA asked ATCO to clarify and substantiate its calculation of creditor days for AA5.

1667. ATCO provided additional information to explain its calculation of creditor days, and in particular the calculation of the individual weightings.[542] Extracts from contracts detailing terms of payments were also provided to substantiate ATCO's calculations. The ERA considered this additional information and decided that ATCO's determination of individual weightings and creditor days for each of the creditor elements followed a reasonable method that was based on ATCO's business operations to calculate a total of 19 creditor days.

***Receivables***

1668. ATCO calculated the receivables parameter to be 62 days, based on meter reading and invoicing schedules and invoice payment terms (Table 159).

**Table 159: ATCO's calculation of receivable days for AA5**

| Receivable element | Days |
|---|---|
| Average unbilled revenue days – based on the meter reading schedule | 40 |
| Average days from meter read to invoice – based on billing twice a month | 7 |
| Days to issue invoice | 1 |
| Days from invoice to payment – payment terms are 10 business days | 14 |
| **Total receivable days** | **62** |

*Source: ATCO, 2020-24 Plan (Access Arrangement Information), p. 145, Table 16.3.*

1669. Information supporting ATCO's calculation of receivable days was limited to the access arrangement information, which is reproduced in Table 159. The information suggested a change to the way in which the parameter was calculated. ATCO's calculation of 62 days for AA5 took into account the average days of unbilled haulage

[542] ATCO response to information request ERA 13 (Confidential), 8 March 2019.

(being 40 days), which ATCO submitted was "inadvertently excluded" in the calculation for AA4. ATCO advised:[543]

> Unbilled haulage reflects the incurred costs to provide reference services, for which revenue has not yet been received. The inclusion of this amount in working capital is consistent with the ERA's AA3 Western Power Final Decision.

1670. As noted by Alinta Energy, there was a significant step increase in ATCO's (nominal) opening working capital from $1.3 million in 2020 to $24.3 million in 2021.[544] This increase was the result of ATCO's calculation of receivable days for AA5 being 62 days (compared to 18 days for AA4).

1671. The ERA's last decision on revisions to Western Power's access arrangement (for the access arrangement period 2017 to 2022) did not require any material amendments to Western Power's method of calculating its working capital.[545] The calculation method used was substantially the same as the method used for the previous access arrangement period. In each case, Western Power included a receivables parameter of 45 days, which corresponded with its meter reading cycles and invoicing and payment terms in the electricity transfer access contract. The ERA noted that:[546]

> The majority of meters are read on a bi-monthly basis with the remainder read on a monthly basis. The standard terms of the electricity transfer access contract are that an invoice is raised within 14 business days of the month following the meter read and the user is required to pay within 10 business days.

1672. The ERA asked ATCO to clarify and substantiate its calculation of receivable days for AA5. ATCO provided additional information to explain its calculation of receivable days, which included the use of proprietary software to produce estimates for unbilled haulage services.[547] Extracts from contracts detailing terms of payments were also provided to substantiate ATCO's calculations. The ERA considered this additional information and decided ATCO's determination of individual receivable elements followed a reasonable method that was based on ATCO's business operations to calculate a total of 62 receivable days.

### *Calculation of working capital*

1673. For the reasons outlined above, the ERA considered ATCO's proposed working capital parameters of the level of inventory, creditors and receivables to calculate the return on working capital were consistent with the requirements of the NGR and national gas objective. However, the calculated return on working capital would change as a result of required amendments to other aspects of ATCO's proposal, such as for example, the rate of return (WACC), target revenue, capital and operating expenditure. Consistent with the required amendments detailed in the sections of the draft decision that dealt with those aspects, the ERA recalculated the return on working capital for AA5 (Table 160). The ERA required ATCO to amend its calculation of working capital.

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543 ATCO, *2020-24 Plan (Access Arrangement Information)*, p. 145.

544 Alinta Energy submission, 14 November 2018, p. 8.

545 ERA, *Final Decision on Proposed Revisions for the Access Arrangement for the Western Power Network 2017/18 – 2021/22*, 20 September 2018, pp. 187-191.

546 ERA, *Final Decision on Proposed Revisions to the Access Arrangement for the Western Power Network*, 5 September 2012, p. 256, paragraph 1127.

547 ATCO response to information request ERA 13 (Confidential), 8 March 2019.

**Draft Decision Required Amendment 12**

ATCO must amend its return on working capital calculation to be consistent with [the] draft decision and as set out in Table 84 [Table 160 in this final decision].

**Table 160: ERA's draft decision calculation of working capital for AA5**

| Return on working capital | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Opening working capital ($ million nominal) | 1.23 | 35.24 | 35.97 | 36.43 | 36.82 |
| WACC (nominal) (%) | 5.70 | 5.70 | 5.70 | 5.70 | 5.70 |
| Return on working capital ($ million nominal) | 0.07 | 2.01 | 2.05 | 2.07 | 2.10 |

## *ATCO's response to the draft decision*

1674. ATCO submitted that it was unable to comply with draft decision required amendment 12 because it did not accept the ERA's other required amendments concerning capital and operating expenditure. Instead, ATCO recalculated the return on working capital based on its revised proposal.

1675. ATCO's revised return on working capital amounts for each year of AA5 is shown is Table 161.

**Table 161 ATCO's revised calculation of working capital for AA5**

| Return on working capital | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Opening working capital ($ million nominal) | 22.3 | 22.3 | 23.3 | 23.8 | 24.8 |
| WACC (nominal) (%) | 4.87 | 4.87 | 4.87 | 4.87 | 4.87 |
| **Return on working capital ($ million nominal)** | **1.1** | **1.1** | **1.1** | **1.2** | **1.2** |
| *Deflator to $real 2019* | *1.013* | *1.026* | *1.039* | *1.052* | *1.066* |
| *Return on working capital ($ million real 2019)* | *1.1* | *1.1* | *1.1* | *1.1* | *1.1* |

*Source: ATCO, 2020-24 Revised Plan (Access Arrangement Information), p. 223, Table 14.4.*

1676. In response to the ERA's draft decision considerations that found ATCO's method of calculating the receivables parameter (that is, receivables days of 62 days) to be reasonable, ATCO submitted that: [548] [549]

> … the opening working capital balance in our 2020-24 Plan was not based on this method but was carried forward from the AA4 Final Decision tariff model. The value carried forward did not allow for the inclusion of the average days of unbilled haulage; the inclusion of which has been accepted in the ERA's Draft Decision. Therefore, we have restated the opening 2020 working capital balance as the estimated closing

[548] ERA, *Draft Decision on Proposed Revisions to the Mid-West and South West Gas Distribution Systems Access Arrangement for 2020 to 2024*, p. 170, paragraph 812.

[549] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, p. 223.

working capital balance for 2020 as the best estimate available. In AA4, the opening working capital balance was similarly estimated by the ERA as the closing balance for the first period, July to December 2014, of AA4.

1677. ATCO submitted that its revised proposal had now calculated the return on working capital in a manner consistent with the ERA's draft decision in all years of AA5.

## *Submissions to the ERA*

1678. Alinta's submission to the ERA addressed ATCO's initial proposal for the calculation of working capital noting there was a significant step increase in ATCO's (nominal) opening working capital from $1.3 million in 2020 to $24.3 million in 2021.[550] This submission was considered as part of the ERA's draft decision (refer also to paragraph 1670 of this final decision).

1679. There were no other submissions in response to the draft decision or ATCO's revised proposal that addressed working capital.

## *Final decision*

1680. While ATCO revised its calculation of working capital for AA5 based on its revised proposal for capital expenditure and operating expenditure, it did not revise the way in which it determined the individual parameters for calculating working capital. That is, the inventory as a percentage of capex, creditors and receivables parameters remain unchanged from ATCO's initial proposal. The ERA's draft decision found that ATCO's methods for determining each of these parameters were reasonable and based on ATCO's business operations. Except for the receivables parameter, the ERA maintains this position.

1681. For the receivables parameter, ATCO submitted that its initial opening working capital balance for 2020 (of $1.3 million) was not based on its proposed change to receivable days. Instead the value was carried forward from the AA4 tariff model, which did not include the average days of unbilled haulage (see paragraph 1669). For this reason, ATCO revised the opening working capital balance for 2020 to be the estimated closing working capital balance for 2020, being $22.26 million (see Table 162). ATCO submitted that the opening working capital balance for AA4 was similarly estimated by the ERA as the closing balance for the first year of the access arrangement period (July to December 2014).[551]

[550] Alinta Energy submission, 14 November 2018, p. 8.

[551] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, p. 223.

**Table 162 ATCO's revised opening and closing working capital amounts for AA5 ($ million nominal)**

| Working capital parameter | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Receivables | 29.88 | 30.72 | 31.56 | 32.40 | 33.37 |
| Inventory | 0.86 | 0.79 | 0.82 | 0.77 | 0.80 |
| Creditors | -8.49 | -8.20 | -8.55 | -8.40 | -8.66 |
| **End of year working capital** | **22.26** | **23.31** | **23.83** | **24.77** | **25.52** |
| | | | | | |
| *Working capital opening value* | *22.26* | *22.26* | *23.31* | *23.83* | *24.77* |
| *Variation* | *0.00* | *1.05* | *0.52* | *0.94* | *0.75* |
| ***Working capital closing value*** | ***22.26*** | ***23.31*** | ***23.83*** | ***24.77*** | ***25.52*** |

*Source: ATCO, 2020-24 Revised Plan (Access Arrangement Information), p. 223 and Tariff Model (public).*

1682. Prior to July 2014 there was no allowance for the cost of working capital. The ERA accepted ATCO's proposal to include the cost of working capital in determining its total revenue requirement for AA4.[552] As indicated by ATCO, the opening working capital balance for AA4 was estimated as the closing balance for the first year of the access arrangement period (July to December 2014).

1683. While ATCO's revised calculation of the opening working capital balance for AA5 is consistent with the way in which the opening balance for AA4 was calculated, the opening working capital balance for AA5 and subsequent access arrangement periods would generally be set as the closing balance of the previous access arrangement period. This approach is consistent with the ERA's most recent final decision on the access arrangement for Western Power's electricity network.[553]

1684. However, while the preferred approach is to set the opening working capital value for AA5 as the closing balance for AA4, the ERA has identified the following issues for the GDS access arrangement.

- The working capital amounts approved by the ERA in its final decision for AA4 used smoothed revenue,[554] which the ERA now considers to be incorrect (see paragraph 1623). The method for determining revenue for working capital, which for the purposes of the access arrangement is being treated as a building block for the determination of total revenue, should use total revenue (or unsmoothed revenue) as required by rule 76 of the NGR.
- The calculation of working capital for AA4 used a receivables parameter of 18 days, which as submitted by ATCO, did not recognise the average days of unbilled haulage (see paragraph 1671).

[552] ERA, *Final Decision on Proposed Revisions to the Access Arrangement for the Mid-West and South-West Gas Distribution Systems*, 30 June 2015, p. 463, paragraph 2179.

[553] ERA, *Final Decision on Proposed Revisions to the Access Arrangement for the Western Power Network 2017/18 – 2021/22, Appendix 4 Revenue Model*, 20 September, p. 117.

[554] ERA, *Final Decision on Proposed Revisions to the Access Arrangement for the Mid-West and South-West Gas Distribution Systems*, 30 June 2015, p. 463, Table 110.

1685. In order to use the AA4 closing working capital balance to set the opening working capital balance for AA5, the working capital values for each year of AA4 would need to be reset to correct the method of determining revenue for working capital (using unsmoothed revenue instead of smoothed revenue) and the omission of unbilled haulage from the receivables parameter. The change in receivables from 18 days to 62 days is significant and would change the value of working capital, which would affect the overall calculation of total revenue for AA4.

1686. Given the issues outlined at paragraph 1684, ATCO's approach of setting the opening working capital balance for AA5 as the estimated closing balance for the first year of AA5 (2020) is accepted. However, the actual calculated return on working capital will change as a result of required amendments to other aspects of ATCO's revised proposal, such as for example, the rate of return (WACC), total (unsmoothed) revenue, capital expenditure and operating expenditure. Consistent with the required amendments detailed in the sections of this final decision that deal with these aspects,[555] the ERA has recalculated the return on working capital for AA5 (Table 163).

**Table 163: ERA's final decision calculation of working capital for AA5 ($ million nominal)**

| Working Capital Parameter | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Receivables | 25.26 | 27.88 | 28.87 | 29.82 | 30.76 |
| Inventory | 0.78 | 0.75 | 0.74 | 0.74 | 0.76 |
| Creditors | (7.80) | (7.71) | (7.80) | (7.93) | (8.11) |
| ***End of year working capital*** | 18.24 | 20.91 | 21.81 | 22.64 | 23.41 |
| | | | | | |
| *Working capital opening value* | 18.24 | 18.24 | 20.91 | 21.81 | 22.64 |
| *Variation* | 0.00 | 2.67 | 0.90 | 0.83 | 0.77 |
| ***Working capital closing value*** | 18.24 | 20.91 | 21.81 | 22.64 | 23.41 |
| | | | | | |
| **Return on working capital** | | | | | |
| Opening working capital | 18.24 | 18.24 | 20.91 | 21.81 | 22.64 |
| WACC % (nominal) | 4.16 | 4.16 | 4.16 | 4.16 | 4.16 |
| ***Return on working capital*** | 0.76 | 0.76 | 0.87 | 0.91 | 0.94 |

**Required Amendment 11**

The return on working capital calculation must be amended to be consistent with this final decision as set out in Table 163.

[555] For rate of return see paragraph 1465, total revenue see paragraph 265, capital expenditure see paragraph 1382 and operating expenditure see paragraph 541.

## Allocation of total revenue

1687. The NGR require total revenue to be allocated between reference services and other services on an allocation of cost basis. Rule 93(2) of the NGR states that costs are to be allocated between reference and other services as follows.

- Costs directly attributable to reference services are to be allocated to those services.
- Costs directly attributable to pipeline services that are not reference services are to be allocated to those services.
- Other costs are to be allocated between reference and other services on a basis (which must be consistent with the revenue and pricing principles) determined or approved by the ERA.

1688. The NGR further allow 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 (rules 93(3) and 93(4)).

### ATCO's initial proposal

1689. Table 164 shows ATCO's initial proposed forecast total revenue allocation for AA5. Total revenue will be recovered from haulage reference services, ancillary reference services and from customers receiving prudent discounts. ATCO offers prudent discounts to some customers in circumstances where competition from other energy sources and the loss of the customer would lead to higher tariffs for existing customers.

**Table 164: ATCO's forecast revenue allocation between reference services and other services for AA5 ($ million nominal)**

| | 2020 | 2021 | 2022 | 2023 | 2024 | Total |
|---|---|---|---|---|---|---|
| Haulage reference services | 187.9 | 197.7 | 201.1 | 207.8 | 215.5 | 1,006.6 |
| Ancillary reference services | 2.9 | 3.0 | 3.1 | 3.2 | 3.3 | 15.5 |
| 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.*

### Draft decision

1690. The ERA determined the total revenue that was to be recovered from haulage reference services by deducting the forecast revenue of customers receiving prudent discounts and ancillary reference services from the annual total revenue. The ancillary service revenue and tariffs are on a cost recovery basis. This was the same method ATCO used to allocate revenue in its initial proposal. It is also the same method that the ERA had used in previous access arrangement reviews.

1691. The total revenue for each year of AA5 was calculated based on the ERA's draft decision considerations for each of the building block components. It was different to the total revenue proposed by ATCO due to the adjustments made by the ERA in the draft decision.

> **Draft Decision Required Amendment 13**
>
> ATCO must amend the allocation of forecast total revenue (nominal) between reference services and other services in accordance with Table 87 of [the] draft decision [Table 165 of this final decision].

**Table 165: ERA's draft decision forecast revenue allocation between reference services and other services for AA5 ($ million nominal)**

| | 2020 | 2021 | 2022 | 2023 | 2024 | Total |
|---|---|---|---|---|---|---|
| Haulage reference services | 166.5 | 169.7 | 172.1 | 174.5 | 177.3 | 860.1 |
| Ancillary reference services | 3.5 | 3.6 | 3.6 | 3.6 | 3.7 | 18.0 |
| Customers receiving prudent discounts | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.8 |
| **Total revenue** | **170.2** | **173.4** | **175.8** | **178.3** | **181.2** | **878.9** |

*Source: ERA, Tariff Model, April 2019.*

## *ATCO's response to the draft decision*

1692. ATCO submitted that it was unable to comply with draft decision required amendment 13 because the amount of reference service revenue in its revised proposal was different to that in the ERA's draft decision. ATCO submitted:[556]

- The amount of haulage revenue will vary according to the reference service revenue required to equalise in NPV terms with total revenue, as well as updates to various elements of the forecast.
- Ancillary reference services revenue will vary due to revised forecasts of reference ancillary services incorporating 2018 data into the forecast method and adjusting for reduced cancellation charges revenue.
- Forecast revenue from prudent discounted services has been updated.

## *Submissions to the ERA*

1693. No submissions to the ERA addressed ATCO's initial proposal for the allocation of total revenue.

1694. There were no submissions in response to the draft decision or ATCO's revised proposal.

[556] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 231.

### *Final decision*

1695. The total revenue for each year of AA5 has been calculated based on the ERA's final decision considerations for each of the building block components. It is different to the total revenue proposed by ATCO due to the adjustments made by the ERA in the final decision. Consistent with these adjustments, the ERA has recalculated the allocation of total revenue (Table 166).

1696. The ERA has maintained the approach used in its draft decision to recalculate the allocation of total revenue. That is, total revenue that is to be recovered from haulage reference services has been determined by deducting the forecast revenue of customers receiving prudent discounts and ancillary reference services from the annual total revenue, with ancillary service revenue and tariffs set on a cost recovery basis. This is the same method used to allocate revenue that ATCO applied in its initial and revised proposals. It is also the same method that the ERA has used in previous access arrangement reviews. The ERA considers the allocation of other costs (e.g. costs of prudent discounts) between reference and other services is consistent with the revenue and pricing principles (as required by rule 93(2)(c) of the NGR).

**Table 166: ERA's final decision forecast revenue allocation between reference services and other services for AA5 ($ million nominal)**

| | 2020 | 2021 | 2022 | 2023 | 2024 | Total |
|---|---|---|---|---|---|---|
| Haulage reference services | 156.12 | 160.01 | 163.71 | 167.75 | 172.50 | **820.10** |
| Ancillary reference services | 3.33 | 3.40 | 3.49 | 3.59 | 3.70 | **17.51** |
| Customers receiving prudent discounts | 0.23 | 0.24 | 0.24 | 0.25 | 0.25 | **1.21** |
| **Total revenue** | **159.69** | **163.65** | **167.45** | **171.59** | **176.45** | **838.82** |

*Source: ERA, Tariff Model, November 2019.*

**Required Amendment 12**

The allocation of forecast total revenue (nominal) between reference services and other services must be amended in accordance with Table 166 of this final decision.

## *Reference tariffs*

1697. Rule 92(2) of the NGR requires the equalisation (in terms of present values) of the forecast revenue from reference services over the access arrangement period and the portion of total revenue allocated to reference services for the access arrangement period.

1698. Rule 94 of the NGR sets out the requirements for determining reference tariffs for distribution pipelines.

**94 Tariffs – distribution pipelines**

(1) For the purpose of determining reference tariffs, customers for reference services provided by means of a distribution pipeline must be divided into tariff classes.

(2) A tariff class must be constituted with regard to:

(a) the need to group customers for reference services together on an economically efficient basis; and

(b) the need to avoid unnecessary transaction costs.

(3) For each tariff class, the revenue expected to be recovered should lie on or between:

(a) an upper bound representing the stand alone cost of providing the reference service to customers who belong to that class; and

(b) a lower bound representing the avoidable cost of not providing the reference service to those customers.

(4) A tariff, and if it consists of 2 or more charging parameters, each charging parameter for a tariff class:

(a) must take into account the long run marginal cost for the reference service or, in the case of a charging parameter, for the element of the service to which the charging parameter relates;

(b) must be determined having regard to:

(i) transaction costs associated with the tariff or each charging parameter; and

(ii) whether customers belonging to the relevant tariff class are able or likely to respond to price signals.

(5) If, however, as a result of the operation of subrule (4), the service provider may not recover the expected revenue, the tariffs must be adjusted to ensure recovery of expected revenue with minimum distortion to efficient patterns of consumption.

(6) The [ERA's] discretion under this rule is limited.

1699. Rule 96 of the NGR provides for prudent discounts for a particular user or prospective user, or a particular class of users or prospective users.

**96 Prudent discounts**

(1) Despite the other provisions of this Division, the [ERA] may, on application by a service provider, approve a discount for a particular user or prospective user or a particular class of users or prospective users.

(2) The [ERA] may only approve a discount under this rule if satisfied that:

(a) the discount is necessary to:

(i) respond to competition from other providers of pipeline services or other sources of energy; or

(ii) maintain efficient use of the pipeline; and

(b) the provision of the discount is likely to lead to reference or equivalent tariffs lower than they would otherwise have been.

(3) If the [ERA] approves a discount under this rule, the [ERA] may also approve allocation of the cost, or part of the cost, of providing the discount to the costs of providing a reference or other service in one or more future access arrangement periods.

(4) In this rule:

**equivalent tariff** means the tariff that is likely to have been set for a service that is not a reference service if the service had been a reference service.

1700. In addition to the NGR, the *National Gas Access (WA) (Local Provisions) Regulations 2009* (Local Regulations) require consideration to be given to the possible effects on small use customers and retailers who supply small use customers. The regulations require uniform tariffs to be applied to small use customers for the same service irrespective of their location (regulation 6(1), Local Regulations).

## *ATCO's initial proposal*

1701. For haulage reference services, ATCO proposed to retain the existing (AA4) tariff classes for AA5 because there were "no material changes in the types of haulage services required by customers in each tariff class, or [the] types of customers requiring reference services."[557] The tariff classes are defined by the type of delivery facilities that are provided to certain customer groups and are summarised in Table 167. For ancillary reference services, ATCO proposed a single tariff class for each service.

**Table 167: ATCO's proposed tariff classes for haulage reference services for AA5**

| Tariff class | Customer characteristics | Delivery facilities |
|---|---|---|
| A1 | Large industrial customers that use over 35TJ per year. | These customers require specific facilities to supply their gas consumption including peak load requirements. |
| A2 | Industrial and commercial customers that use 10TJ to 35TJ per year. | These customers require specific facilities to supply their gas consumption including peak load requirements. |
| B1 | Smaller industrial and commercial customers that use from 1TJ up to 10TJ per year. | These customers usually require specific facilities to supply their gas consumption including peak load requirements. |
| B2 | Commercial enterprises using up to 1TJ per year. | Standard 12m$^3$ per hour meter. |
| B3 | Generally, residential customers but may include some small commercial enterprises. Median consumption is in the 10GJ to 12GJ per annum range. | Standard 6m$^3$ to 10m$^3$ per hour meter. |

*Source: ATCO, 2020-24 Plan (Access Arrangement Information), Attachment 19.1, 31 August 2018.*

1702. ATCO also proposed to retain the existing tariff structures for both haulage and ancillary reference services for AA5. The basic tariff structure for haulage services includes a fixed charge and declining block usage charge component (Table 168). Ancillary services are charged at the same rate to all customers within the relevant tariff class, or at a rate reflecting the costs of the individual service that is provided

[557] ATCO, *2020-24 Plan (Access Arrangement Information), Attachment 19.1 AA5 Reference Tariffs,* 31 August 2018, p. 7.

(Table 172). ATCO's calculation of individual reference tariffs is discussed as part of the ERA's draft decision considerations (see paragraph 1712).

**Table 168: ATCO's proposed tariff structures for haulage reference services for AA5**

| Tariff class | Service element | Charging parameter |
|---|---|---|
| A1 | Fixed charge for using the distribution system | Standing charge ($/year) |
| | Fixed charge for the capacity of network utilised | Demand charge ($/MHQ GJ/km) |
| | Variable charge based on throughput and haulage distance | Usage charge ($/GJ/km) |
| | Charge to reflect the specific costs associated with the customer for service pipe, regulators, metering, and telemetry | User specific charge ($) |
| A2 | Fixed charge for using the distribution system | Standing charge ($/year) |
| | Variable charge based on throughput | Usage charge ($/GJ) |
| | Charge to reflect the specific costs associated with the customer for service pipe, regulators, metering, and telemetry | User specific charge ($) |
| B1 | Fixed charge for using the distribution system | Standing charge ($/year) |
| | Variable charge based on throughput | Usage charge ($/GJ) with two blocks |
| | Charge to reflect the specific costs associated with the customer for service pipe, regulators, metering, and telemetry | User specific charge ($) |
| B2 | Fixed charge for using the distribution system | Standing charge ($/year) |
| | Variable charge based on throughput | Usage charge ($/GJ) with two blocks |
| B3 | Fixed charge for using the distribution system | Standing charge ($/year) |
| | Variable charge based on throughput | Usage charge ($/GJ) with three blocks |

*Source: ATCO, 2020-24 Plan (Access Arrangement Information), Table 19.2, 31 August 2018.*

1703. ATCO's proposed haulage price path in real terms is shown in Table 169. ATCO proposed larger tariff increases in the first year with yearly changes of 2.3 per cent during the remainder of the access arrangement period.

**Table 169: ATCO's proposed haulage price path in real terms for AA5 (%)**

| Tariff | Price change on 1 January 2020 | Subsequent annual price changes |
|---|---|---|
| A1, A2, B1 and B2 | 22.4 | 2.3 |
| B3 standing charge | 0 | 0 |
| B3 first 1.825 GJ [558] | - | - |
| B3 volume > 1.825 GJ, < 9.855 GJ | 71.7 | 2.3 |
| B3 volume > 9.855 GJ | 194.8 | 2.3 |

*Source: ATCO, 2020-24 Plan (Access Arrangement Information), Table 19.4, 31 August 2018. ATCO, 18.1 Revenue & Pricing Model PUBLIC, 31 August 2018.*

1704. ATCO's proposed haulage reference services tariffs for AA5 are shown in Table 170.

**Table 170: ATCO's proposed haulage reference services tariffs for AA5 ($ real as at 31 December 2019)**

| Charging parameter | Units | 1 Jan 2020 | 1 Jan 2021 | 1 Jan 2022 | 1 Jan 2023 | 1 Jan 2024 |
|---|---|---|---|---|---|---|
| **Reference tariff A1** | | | | | | |
| Standing charge | $/year | 39,712.90 | 40,626.30 | 41,560.70 | 42,516.60 | 43,494.48 |
| Demand charges | | | | | | |
| First 10 km | $/GJ km | 167.42 | 171.27 | 175.21 | 179.24 | 183.36 |
| Distance > 10 km | $/GJ km | 88.13 | 90.16 | 92.23 | 94.35 | 96.52 |
| Usage charges | | | | | | |
| First 10 km | $/GJ km | 0.03542 | 0.03623 | 0.03706 | 0.03791 | 0.03878 |
| Distance > 10 km | $/GJ km | 0.01784 | 0.01825 | 0.01867 | 0.01910 | 0.01954 |
| **Reference tariff A2** | | | | | | |
| Standing charge | $/year | 21,977.90 | 22,483.39 | 23,000.51 | 23,529.52 | 24,070.70 |
| First 10 TJ | $GJ | 2.13 | 2.18 | 2.23 | 2.28 | 2.33 |
| Volume > 10 TJ | $GJ | 1.14 | 1.17 | 1.20 | 1.23 | 1.26 |
| **Reference tariff B1** | | | | | | |
| Standing charge | $/year | 1,114.12 | 1,139.74 | 1,165.95 | 1,192.77 | 1,220.20 |
| First 5 TJ | $GJ | 4.22 | 4.32 | 4.42 | 4.52 | 4.62 |
| Volume > 5 TJ | $GJ | 3.63 | 3.71 | 3.80 | 3.89 | 3.98 |

[558] There is no charge for the first 1.825 GJ of gas consumed.

| Charging parameter | Units | 1 Jan 2020 | 1 Jan 2021 | 1 Jan 2022 | 1 Jan 2023 | 1 Jan 2024 |
|---|---|---|---|---|---|---|
| **Reference tariff B2** | | | | | | |
| Standing charge | $/year | 277.70 | 284.09 | 290.62 | 297.30 | 304.14 |
| First 100 GJ | $GJ | 7.08 | 7.24 | 7.41 | 7.58 | 7.75 |
| Volume > 100 GJ | $GJ | 4.21 | 4.31 | 4.41 | 4.51 | 4.61 |
| **Reference tariff B3** | | | | | | |
| Standing charge | $/year | 116.97 | 116.97 | 116.97 | 116.97 | 116.97 |
| First 1.825 GJ | $GJ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Volume > 1.825 GJ, < 9.855 GJ | $GJ | 8.38 | 8.57 | 8.77 | 8.97 | 9.18 |
| Volume > 9.855 GJ | $GJ | 6.22 | 6.36 | 6.51 | 6.66 | 6.81 |

*Source: ATCO, 18.1 Revenue & Pricing Model PUBLIC, 31 August 2018.*

1705. ATCO noted that its expected tariff revenue from the proposed tariffs for each tariff class were between the lower bound of the avoidable cost of not providing the reference service and the upper bound of the standalone cost of providing the reference service as required by rule 94(3) of the NGR (Table 171).

**Table 171: ATCO's haulage reference service compliance with rule 94(3) of the NGR for AA5 ($ million real as at 31 December 2019)**

| Tariff class | Total costs allocated | Avoidable costs | Expected revenue | Standalone costs |
|---|---|---|---|---|
| A1 | 32.4 | 7.1 | 35.3 | 183.5 |
| A2 | 22.1 | 2.8 | 21.4 | 277.3 |
| B1 | 54.9 | 9.5 | 51.7 | 433.9 |
| B2 | 48.7 | 8.1 | 52.7 | 442.0 |
| B3 | 686.3 | 120.8 | 683.6 | 781.9 |

*Source: ATCO, 2020-24 Plan (Access Arrangement Information), Table 19.8, 31 August 2018.*

1706. ATCO's proposed tariff structures for its ancillary reference services are shown in Table 172.

**Table 172: ATCO's proposed tariff structures for ancillary reference services for AA5**

| Ancillary service | Charging parameter |
|---|---|
| Apply a meter lock | Published tariff per activity |
| Remove a meter lock | Published tariff per activity |
| Deregistering a delivery point | Published tariff per activity, plus the reasonable cost to ATCO to deregister the delivery point |
| Disconnect service | Published tariff per activity |
| Reconnect service | Published tariff per activity |
| Special meter reading | Published tariff per activity |

*Source: ATCO, 2020-24 Plan (Access Arrangement Information), Table 19.3, 31 August 2018.*

1707. ATCO's proposed ancillary reference service tariffs are shown in Table 173. The tariffs were derived to recover the net present value of total revenue allocated to ancillary reference services. Ancillary reference service revenue is designed on a cost recovery basis.

**Table 173: ATCO's proposed ancillary reference tariffs for ancillary services for AA5 ($ nominal)**

| Ancillary service | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Applying a meter lock | 49.14 | 49.14 | 49.14 | 49.14 | 49.14 |
| Removing a meter lock | 26.73 | 26.73 | 26.73 | 26.73 | 26.73 |
| Deregistering a delivery point | 122.54 | 122.54 | 122.54 | 122.54 | 122.54 |
| Disconnecting a delivery point | 97.92 | 97.92 | 97.92 | 97.92 | 97.92 |
| Reconnecting a delivery point | 138.62 | 138.62 | 138.62 | 138.62 | 138.62 |
| Special meter reading | 12.82 | 12.82 | 12.82 | 12.82 | 12.82 |

*Source: ATCO, 2020-24 Plan (Access Arrangement Information), Table 19.9, 31 August 2018.*

1708. ATCO noted that its expected tariff revenue from the proposed prices for ancillary reference services were between the lower bound of the avoidable cost of not providing the reference service and the upper bound of standalone cost of providing the reference service as required by rule 94(3) of the NGR as shown in Table 174.

**Table 174: ATCO's ancillary reference services compliance with rule 94(3) of the NGR for AA5 ($ million real as at 31 December 2019)**

| Tariff class | Total costs allocated | Avoidable costs | Expected revenue | Standalone costs |
|---|---|---|---|---|
| Ancillary services | 13.3 | 11.7 | 13.0 | 13.3 |

*Source: ATCO, 2020-24 Plan (Access Arrangement Information), Table 19.8, 31 August 2018.*

## *Draft decision*

1709. Several submissions addressed ATCO's Voice of Customer program and the program findings reported by ATCO, which ATCO used to support its proposed tariffs. These submissions appeared to question the credibility of the program. The ERA considered that there was no regulatory role under the NGL or NGR for it to directly assess such engagement programs. However, the consultation requirements of the NGR for the review of access arrangement provisions provide ATCO's customers and other interested parties with opportunities to dispute information submitted by ATCO and provide alternate views and evidence for the ERA's consideration.

1710. The ERA provided a summary of the matters raised in submissions on ATCO's initial proposal for reference tariffs (Table 175). The ERA considered these matters when making its draft decision. Alinta, AGL and Kleenheat also addressed ATCO's proposed tariff for the special meter reading reference service (see paragraph 1732).

**Table 175: Summary of submissions to the ERA addressing ATCO's proposed reference tariffs for AA5**

| Submission | Matters raised in submission |
|---|---|
| Alinta Energy[559] | Supported ATCO's proposal to retain existing tariff classes and tariff structures for AA5 but indicated concern over the magnitude of the proposed step increase in the reference tariff for an average customer in each tariff class at the start of AA5. For example, for B3 tariff (residential) customers the proposed increase is $38.<br>Acknowledged the preferences of end-use customers who participated in ATCO's Voice of Customer program for an initial price increase and then price stability but believed many residential (B3) customers would consider the magnitude of the increase unreasonable if retailers could pass the increase directly through to the customer.<br>– The regulated (maximum) gas tariff for small use customers is set by the Western Australian Government via tariff regulations (*Energy Coordination (Gas Tariffs) Regulations 2000*) which restricts tariff increases to a CPI-based formula each financial year.<br>– Any increases to the network tariff above CPI will be borne by retailers, and predominately by Alinta as the incumbent gas retailer with a significant number of small use customers on the regulated gas tariff.<br>– New entrant retailers can offer discounted retail tariffs to "high value" customers, leaving Alinta to supply, at below cost, "low use" customers on regulated retail tariffs.<br>Supported long term price stability but believed this could be achieved without the initial steep price increase in 2020. Recommended a smaller initial price increase in 2020 for B3 tariff customers, followed by a smooth increase over AA5.<br>Supported changes to include B2 and B3 customers in the weighted average price cap, consistent with access arrangements prior to AA4. A price cap provides an incentive for ATCO to increase customer connections and usage to generate additional revenue. A revenue yield approach does not provide the same incentive. |

[559] Alinta Energy submission, 14 November 2018, pp. 4-5.

| Submission | Matters raised in submission |
|---|---|
| AGL Energy[560] | Concerned with the proposed significant increase in haulage tariffs for 2020 and believed the proposed price-path is untenable.<br>Submitted that:<br>– Because gas is an optional fuel, any spike in gas prices could drive customers away from gas or discourage customers from seeking a gas connection.<br>– While there may be no significant increase in gazetted (regulated) retail tariffs, as suggest by ATCO, there will still be a significant effect on the contestable retail gas market and on the actual gas prices paid by customers.<br>– Current competitive gas market offers to Western Australian customers are more than 30 per cent below the regulated retail tariffs. Without increases to the regulated retail tariffs, the proposed increase in network tariffs in 2020 will affect the gas offers to customers (for example, a reduction in the competitive discounts being offered by gas retailers).<br>Believed a moderation of the step increase in 2020 followed by smaller annual increases over AA5 would be a compromise between competing objectives and provide a better outcome than the current proposal. |
| Kleenheat[561] | Concerned that ATCO is proposing significant increases in reference tariffs and a high level of operating and capital expenditure in AA5.<br>Noted that, while the increase in reference tariffs has been described as "just $14 more a year per household (on average)", the actual price increase from the end of AA4 is much more. The proposed reference tariff increases by $38 or 23 per cent between 2019 and 2020, followed by increases of around $6 or 3 per cent in subsequent years.<br>Concerned that information may not have been presented in an unbiased manner during ATCO's customer engagement process. Kleenheat conducted its own survey of customers using the two price paths presented by ATCO and found that 61 per cent of customers voted against the ATCO proposal, in favour of steady, moderate increases over a five-year period. |
| Synergy[562] | Concerned that large industrial and commercial customers have limited ability to mitigate ATCO's proposed tariff increases. Unlike residential customers, many industrial users cannot move away from gas as a fuel source due to the high capital costs invested in operations.<br>Submitted that:<br>– A price increase of around 24 per cent between 2019 and 2020 is untenable for customers and constitutes a price shock.<br>– The effect of significant increases in the energy costs of industrial/commercial gas customers would likely need to be passed through by retailers to their customers to remain commercial. This would have a negative effect on competition and the legitimate business interests of gas retailers, making gas less competitive in the short-term.<br>– There are alternative price paths that would better achieve the pricing principles in the National Gas Law or the national gas objective. |

[560] AGL Energy submission, 14 November 2018, p. 3.

[561] Kleenheat submission, 13 November 2018, pp. 1-2.

[562] Synergy submission, 14 November 2018, pp. 2-5.

| Submission | Matters raised in submission |
|---|---|
| | ATCO has not demonstrated how its proposed price path will meet these pricing principles and/or the national gas objective.<br>On ATCO's stakeholder engagement process, submitted that:<br>– Little weight should be placed on ATCO's Voice of Customer outcomes. ATCO's findings from its stakeholder engagement process were:<br>– not adequately weighted to reflect the interest in, and impact on, various stakeholders<br>– targeted towards end-use customers rather than network users (i.e. retailers)<br>– heard, but not actioned; and in some instances, potentially misrepresented.<br>– Considered the statement that "ATCO found that customers tolerated the larger cost increase in the initial year as they viewed the step change as relatively modest" to be misinformed. While 86 per cent of residential customers preferred a step change, these customers will not see the step change fully reflected in their bills because tariffs for small use customers are capped.<br>– Only 25 per cent of commercial and industrial customers, who will experience the full effect of the price increase, were in favour of the large initial price increase. |

1711. The ERA considered that the forecast revenue from reference tariffs for haulage and ancillary services (discussed below at paragraphs 1712 to 1732) are derived to equalise (in terms of present value) the portion of total revenue allocated to these services, as required by rule 92(2) of the NGR. The portion of total revenue allocated to these services is provided in net present value terms in Table 176.

**Table 176: Draft decision total revenue allocated to reference services for AA5**

| | Nominal $ millions present value |
|---|---|
| Haulage reference services | 729.4 |
| Ancillary reference services | 15.3 |

*Source: ERA, Draft Decision Appendix 4, GDS Tariff Model, April 2019.*

### *Haulage reference service tariffs*

1712. ATCO proposed to retain the same tariff structure and classes from AA4. No submissions to the ERA addressed this proposal. In the absence of any reason to amend the tariff structure and classes for AA5, the ERA considered that the existing tariff structure and classes were consistent with the NGR.

1713. The ERA reviewed ATCO's proposed tariffs against the provisions of rules 92 and 94 of the NGR, and the revenue and pricing principles in the NGL. The ERA considered the possible effect of the proposed reference tariffs, the method of determining the tariffs and the reference tariff variation mechanism on small use customers, as required by the Local Regulations. The ERA must approve an access arrangement that includes tariffs that comply with rule 92, which allows ATCO to recover the portion of total revenue allocated to reference services.

1714. The ERA reviewed ATCO's proposed tariffs to ensure that the:

- Expected revenue to be recovered from each tariff class is between the avoidable cost of not providing the reference service and the standalone cost of providing the reference.
- Tariffs take into account the long-run marginal cost for the reference service.
- Tariffs recover the efficient costs of service with minimal distortion to efficient pricing signals.
- Effects on small use customers and those that supply small use customers are considered as required by the Local Regulations.
- Forecast revenue to be recovered in the last year of AA5 is plus or minus 3 per cent of total revenue for that year.

1715. Given that ATCO's proposed tariffs and price path would recover in excess of the expected revenue allocated to the haulage reference service, the ERA assessed other price path options that would best meet the national gas objective, the revenue and pricing principles, and rules 92 and 94 of the NGR. The ERA applied the matters in paragraph 1714 to assess ATCO's pricing intentions and considered stakeholder concerns.[563]

1716. Demand during AA5 is expected to decline and, because of this, the long run marginal cost would equal the short run marginal cost. The short run marginal cost would be low given the declining demand forecast as there would be enough capacity in the network because peak demand is also declining. For these reasons, the ERA gave little weight to this matter in its assessment.

1717. Considering efficient pricing signals, the ERA noted that the volume tariffs for B3 customers became lower than the volume tariffs for B2 customers during AA4. This was due to the increases to the fixed charge to get the charge to at least recover the incremental cost of connecting a customer by the end of AA4. No submissions raised specific issues with maintaining the B3 fixed charge constant in real dollars. The ERA maintained this fixed charge constant for the AA5 tariffs.

1718. ATCO determined its proposed B3 tariffs by targeting a recovery of 81 per cent of tariff revenue in present value terms over AA5. This is a slight increase on the portion of total revenue to be recovered in 2019 of 80.6 per cent. The ERA maintained this target to calculate B3 volume tariffs. The B3 volume tariff for consumption greater than 9.855 GJ was set to increase by $3 per GJ in 2020. The B3 volume tariff between 1.825 GJ and 9.855 GJ could vary so that B3 forecast tariff revenue recovered 81 per cent of tariff revenue in present value terms over AA5.[564] The B3 volume tariffs used for the draft decision were then at least above the B2 volume tariffs.

1719. ATCO applied some small hard-coded adjustments to the tariffs for B2 for 2020. The ERA removed these minor adjustments and considered that the tariffs should follow the same price path as A1, A2 and B1 customers because there was no clear benefit from these adjustments.

[563] Submissions from AGL, Alinta and Kleenheat focussed predominantly on residential and small business customers, while Synergy noted the different issues faced by larger industrial and commercial customers.

[564] Consumption less than 1.825 GJ is not charged.

1720. The ERA then applied the same real price increase of 2.3 per cent each year from 2021 to 2024 to all tariff classes as proposed by ATCO. This was to reduce the initial tariff increase in 2020. The tariff increase for 2020 was then calculated to ensure that the forecast revenue from haulage reference services equalled (in terms of present value) the portion of total revenue allocated to haulage reference services.

1721. ATCO's proposed prudent discounts were accepted to determine haulage reference tariffs.

1722. The tariff increase in 2020 for A1, A2, B1 and B2 customers was 7.56 per cent, which was less than half the increase proposed by ATCO of 22.4 per cent. The B3 volume tariff increases were also lower than the increases proposed by ATCO of 71.7 per cent and 194.8 per cent. Table 177 shows the tariff increases in percentage terms over AA5 calculated by the ERA.

**Table 177: ERA's draft decision price path (real annual percentage change in tariffs) [565]**

| Reference tariff | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| A1 | 7.56 | 2.30 | 2.30 | 2.30 | 2.30 |
| A2 | 7.56 | 2.30 | 2.30 | 2.30 | 2.30 |
| B1 | 7.56 | 2.30 | 2.30 | 2.30 | 2.30 |
| B2 | 7.56 | 2.30 | 2.30 | 2.30 | 2.30 |
| B3 | | | | | |
| Standing charge | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| First 1.825 GJ | - | - | - | - | - |
| Volume > 1.825 GJ and < 9.855 GJ | 22.19 | 2.30 | 2.30 | 2.30 | 2.30 |
| Volume > 9.855 GJ | 142.49 | 2.30 | 2.30 | 2.30 | 2.30 |

*Source: ERA, Draft Decision Appendix 4, GDS Tariff Model, April 2019.*

1723. While the B3 volume price increases were large, the standing (or fixed) charge would remain constant. The fixed charge comprises 64 per cent of an average residential bill. Under the ERA's draft decision, an average B3 customer's network bill would increase by 12 per cent in real terms in 2020.[566]

1724. When making its draft decision, the ERA acknowledged the comments from interested parties on the size of ATCO's proposed tariff increases for residential customers. The Local Regulations require consideration to be given to the effects on small use customers and retailers who supply small use customers. The ERA considered these effects. The Local Regulations do not void the requirements in the NGR, particularly the requirement that ATCO must be allowed to recover its forecast revenue during the access arrangement period.

[565] Overall Change is the change in tariffs from 1 January 2019 (the current tariffs) to 1 January 2024 (the last year of AA5).

[566] A B3 customer consuming 13.5 GJ of gas per year.

1725. Given that the volume tariffs for B3 customers in 2019 were around half of what the tariffs would be if they were recovering the total revenue for 2019, the main reason that tariffs needed to increase is to allow ATCO to recover total revenue during the AA5 period.

1726. While the average B3 customer's annual network bill would increase in 2020, the average network bill of $184 would be below the annual equivalent bill for the same customer at the start of the AA4 period – which was $251 in December 2019 dollars. Even the estimated annual network bill at the end of AA5 in 2024 ($190) would be well below the bill at the start of AA4 for the same customer.

1727. ATCO proposed a price increase of 22.4 per cent to A1, A2, B1 and B2 customers in 2020. Synergy expressed concern that commercial customers were not in favour of this increase in the first year of the access arrangement period. Synergy also noted that the Government did not set a maximum retail price for commercial customers and ATCO's increases would be fully reflected in their bills. The ERA's recalculated price, based on its draft decision, reduced this increase to 7.56 per cent, which the ERA considered mitigated this concern. As noted above for B3 customers, some level of increase from the 2019 tariffs is required to move prices to recover the total revenue required during AA5.

1728. The ERA's calculated tariffs for AA5 would also result in the forecast revenue to be recovered in the last year of AA5 within plus or minus 3 per cent of total revenue for that year. This was expected to reduce the likelihood of large price increases between access arrangement periods due to the price path chosen for AA5. The actual tariff increases in AA6 will depend on many other factors, but a reasonable expectation based on current information is that these would be close to the cost of service (total revenue) for 2024 (the last year of AA5).

1729. As shown in Table 178, the ERA's calculated tariffs in the draft decision were between the avoidable cost and standalone costs calculated by ATCO in its initial proposal, and met rule 94 of the NGR. Rule 94 of the NGR requires that the reference tariff revenue for each tariff class is between the avoidable and standalone cost for that service.

**Table 178: ERA's draft decision haulage reference service compliance with rule 94(3) of the NGR for AA5 ($ million real as at 31 December 2019)**

| Tariff class | Avoidable costs | Expected revenue | Standalone costs |
|---|---|---|---|
| A1 | 7.1 | 34.6 | 183.5 |
| A2 | 2.8 | 21.2 | 277.3 |
| B1 | 9.5 | 51.4 | 433.9 |
| B2 | 8.1 | 48.3 | 442.0 |
| B3 | 120.8 | 661.8 | 781.9 |

*Source: ERA, Draft Decision Appendix 4, GDS Tariff Model, April 2019.*

1730. Table 179 shows the draft decision haulage reference tariffs (in real dollars) calculated by the ERA for AA5. These tariffs are based on the ERA's calculation of total revenue and the allocation of that revenue to haulage reference services (refer to allocation of total revenue at paragraph 1687). The tariffs will vary based on the tariff variation mechanism (see paragraph 1766).

**Draft Decision Required Amendment 14**

ATCO must amend Annexure A of the proposed revised access arrangement to reflect the tariffs set out in Table 101 of [the] draft decision [Table 179 in this final decision].

**Table 179: ERA's draft decision real haulage reference tariffs for AA5 ($ real as at 31 December 2019)**

| Charging parameter | Units | 1 Jan 20 | 1 Jan 21 | 1 Jan 22 | 1 Jan 23 | 1 Jan 24 |
|---|---|---|---|---|---|---|
| **Reference tariff A1** | | | | | | |
| Standing charge | $/year | 34,905.10 | 35,707.92 | 36,529.20 | 37,369.37 | 38,228.87 |
| Demand charges | | | | | | |
| First 10 km | $/GJ km | 147.15 | 150.53 | 153.99 | 157.54 | 161.16 |
| Distance > 10 km | $/GJ km | 77.46 | 79.24 | 81.06 | 82.93 | 84.83 |
| Usage charges | | | | | | |
| First 10 km | $/GJ km | 0.03113 | 0.03184 | 0.03258 | 0.03333 | 0.03409 |
| Distance > 10 km | $/GJ km | 0.01568 | 0.01604 | 0.01641 | 0.01679 | 0.01718 |
| **Reference tariff A2** | | | | | | |
| Standing charge | $/year | 19,317.18 | 19,761.47 | 20,215.98 | 20,680.95 | 21,156.61 |
| First 10 TJ | $GJ | 1.87 | 1.91 | 1.96 | 2.00 | 2.05 |
| Volume > 10 TJ | $GJ | 1.00 | 1.02 | 1.05 | 1.07 | 1.10 |
| **Reference tariff B1** | | | | | | |
| Standing charge | $/year | 979.24 | 1,001.76 | 1,024.80 | 1,048.37 | 1,072.49 |
| First 5 TJ | $GJ | 3.71 | 3.80 | 3.88 | 3.97 | 4.06 |
| Volume > 5 TJ | $GJ | 3.19 | 3.27 | 3.34 | 3.42 | 3.50 |
| **Reference tariff B2** | | | | | | |
| Standing charge | $/year | 243.99 | 249.60 | 255.34 | 261.21 | 267.22 |
| First 100 GJ | $GJ | 6.21 | 6.35 | 6.50 | 6.64 | 6.80 |
| Volume > 100 GJ | $GJ | 3.70 | 3.79 | 3.87 | 3.96 | 4.05 |
| **Reference tariff B3** | | | | | | |
| Standing charge | $/year | 116.97 | 116.97 | 116.97 | 116.97 | 116.97 |
| First 1.825 GJ | $GJ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Volume > 1.825 GJ, < 9.855 GJ | $GJ | 5.97 | 6.10 | 6.24 | 6.39 | 6.54 |
| Volume > 9.855 GJ | $GJ | 5.11 | 5.22 | 5.34 | 5.47 | 5.59 |

*Source: ERA, Draft Decision Appendix 4, GDS Tariff Model, April 2019.*

### *Ancillary reference service tariffs*

1731. The ancillary reference service tariffs were calculated to recover the cost to provide these services. The cost of these services was discussed at paragraphs 345 to 349.

1732. The ERA received submissions that addressed the price of the special meter reading service. Alinta and AGL considered that the price for special meter reading was reasonable, while Kleenheat noted that ATCO's special meter reading charge was higher than the charges of some other service providers. The ERA considered that ATCO's proposed charge for the special meter reading service and the charges for the other ancillary services were reflective of the best estimate of costs for these services, consistent with rule 74 of the NGR. As a result, the ERA accepted ATCO's proposed ancillary reference tariffs (Table 180).

**Table 180: ERA's draft decision reference tariffs for ancillary services for AA5 ($ real 31 December 2019)**

| Ancillary service | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Applying a meter lock | 49.14 | 49.14 | 49.14 | 49.14 | 49.14 |
| Removing a meter lock | 26.73 | 26.73 | 26.73 | 26.73 | 26.73 |
| Deregistering a delivery point | 122.54 | 122.54 | 122.54 | 122.54 | 122.54 |
| Disconnecting a delivery point | 97.92 | 97.92 | 97.92 | 97.92 | 97.92 |
| Reconnecting a delivery point | 138.62 | 138.62 | 138.62 | 138.62 | 138.62 |
| Special meter reading | 12.82 | 12.82 | 12.82 | 12.82 | 12.82 |

*Source: ERA, Draft Decision Appendix 4, GDS Tariff Model, April 2019.*

## *ATCO's response to the draft decision*

1733. ATCO submitted that it was unable to comply with draft decision required amendment 14 because it did not accept other required amendments (for capital expenditure and operating expenditure). ATCO did, however, continue to follow the principles outlined in its initial proposal to determine tariff classes, tariff structures and tariffs for its revised proposal.[567] ATCO agreed with the criteria set out in the ERA's draft decision for setting AA5 tariffs.[568]

### *Tariff classes*

1734. ATCO's revised proposal maintained the same tariff classes as set out in its initial proposal (see Table 167). ATCO submitted that these tariff classes met its regulatory obligations:[569]

- To be economically efficient – tariff classes are based on the delivery facilities required and hence the cost to serve each tariff class, therefore customers have been grouped on an economically efficient basis as required by rule 94(2)(a) of the NGR.

[567] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 238.

[568] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 238.

[569] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 240.

- To avoid unnecessary transaction costs – retailers and other stakeholders avoid costs arising from change by maintaining the same tariff classes.

***Tariff structures***

1735. ATCO's revised proposal maintained the same tariff structures as set out in its initial proposal (see Table 168 for reference services and Table 172 for ancillary services). ATCO submitted that these tariff structures met its regulatory obligations:[570]

- To be consistent with the national gas objective – the tariff structure includes both a fixed charge and a usage charge component, which provides price signals to customers about their efficient usage of the network.
- To consider transaction costs (as required by rule 94(4)(b)(i) of the NGR) – maintaining the existing tariff avoids costly changes to systems and processes that might be required if the tariff structure changed.
- To respond to price signals (as required by rule 94(4)(b)(ii) of the NGR) – maintaining a simple tariff structure of a standing charge and two usage bands makes it easier for customers to understand the effect on the distribution charge of connection or changes in consumption.

***Tariff charging parameters***

1736. ATCO's revised proposal maintained the same tariff setting process for AA5 as set out in ATCO's initial proposal. ATCO summarised this process as follows:

- Allocate costs to reference services, noting that each haulage reference service corresponds to a single tariff class, so that tariffs can be set to recover those costs.
- Estimate the long-run marginal cost of providing the reference services so that tariffs can be set to promote efficient utilisation of the network.
- Set tariff components so the usage charge accounts for the long-run marginal cost and that the costs of providing the reference service are recovered.
- Confirm that for each tariff class, the revenue expected to be recovered by the tariff charges lies between an upper bound of the stand-alone cost of providing the reference service and a lower bound of the avoidable cost of providing the reference service.[571]

1737. ATCO submitted that its revised proposal maintained the price path in its initial proposal and accepted by the ERA as a step change in price in 2020, with an annual 2.3 per cent change in subsequent years. ATCO's revised price path for haulage reference services is shown in Table 181. The proposed (indicative) haulage tariffs for AA5 are shown in Table 182.

[570] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, pp. 240-242.

[571] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 243.

**Table 181: ATCO's revised proposed haulage price path in real terms for AA5 (per cent)**

| Tariff | Price change on 1 January 2020 | | Subsequent annual price changes | |
|---|---|---|---|---|
| | Initial proposal | Revised proposal | Initial proposal | Revised proposal |
| A1, A2, B1 and B2 | 22.4 | 10.6 | 2.3 | 2.3 |
| B3 standing charge | 0 | 0 | 0 | 0 |
| B3 first 1.825 GJ | - | - | - | - |
| B3 volume > 1.825 GJ and < 9.855 GJ | 71.7 | 46.4 | 2.3 | 2.3 |
| B3 volume > 9.855 GJ | 194.8 | 142.2 | 2.3 | 2.3 |

*Source: ATCO, 2020-24 Revised Plan (Access Arrangement Information), 12 June 2019, Table 17.4. ATCO, 16.1 Tariff Model (public) 12 June 2019.*

**Table 182 ATCO's revised proposed haulage tariffs ($ real as at 31 December 2019)**

| Charging parameter | Units | 1 Jan 2020 | 1 Jan 2021 | 1 Jan 2022 | 1 Jan 2023 | 1 Jan 2024 |
|---|---|---|---|---|---|---|
| **Reference tariff A1** | | | | | | |
| Standing charge | $/year | 35,889.75 | 36,715.21 | 37,559.66 | 38,423.53 | 39,307.27 |
| Demand charges | | | | | | |
| First 10 km | $/GJ km | 151.27 | 154.75 | 158.31 | 161.95 | 165.67 |
| Distance > 10 km | $/GJ km | 79.62 | 81.45 | 83.32 | 85.24 | 87.20 |
| Usage charges | | | | | | |
| First 10 km | $/GJ km | 0.03200 | 0.03274 | 0.03349 | 0.03426 | 0.03505 |
| Distance > 10 km | $/GJ km | 0.01613 | 0.01650 | 0.01688 | 0.01727 | 0.01767 |
| **Reference tariff A2** | | | | | | |
| Standing charge | $/year | 19,858.09 | 20,314.83 | 20,782.07 | 21,260.06 | 21,749.04 |
| First 10 TJ | $GJ | 1.92 | 1.96 | 2.01 | 2.06 | 2.11 |
| Volume > 10 TJ | $GJ | 1.03 | 1.05 | 1.07 | 1.09 | 1.12 |
| **Reference tariff B1** | | | | | | |
| Standing charge | $/year | 1,003.91 | 1,027.00 | 1,050.62 | 1,074.78 | 1,099.50 |
| First 5 TJ | $GJ | 3.82 | 3.91 | 4.00 | 4.09 | 4.18 |
| Volume > 5 TJ | $GJ | 3.29 | 3.37 | 3.45 | 3.53 | 3.61 |

| Charging parameter | Units | 1 Jan 2020 | 1 Jan 2021 | 1 Jan 2022 | 1 Jan 2023 | 1 Jan 2024 |
|---|---|---|---|---|---|---|
| **Reference tariff B2** | | | | | | |
| Standing charge | $/year | 250.59 | 256.35 | 262.25 | 268.28 | 274.45 |
| First 100 GJ | $GJ | 6.35 | 6.50 | 6.65 | 6.80 | 6.96 |
| Volume > 100 GJ | $GJ | 3.81 | 3.90 | 3.99 | 4.08 | 4.17 |
| **Reference tariff B3** | | | | | | |
| Standing charge | $/year | 116.84 | 116.84 | 116.84 | 116.84 | 116.84 |
| First 1.825 GJ | $GJ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Volume > 1.825 GJ, < 9.855 GJ | $GJ | 7.16 | 7.32 | 7.49 | 7.66 | 7.84 |
| Volume > 9.855 GJ | $GJ | 5.11 | 5.23 | 5.35 | 5.47 | 5.60 |

*Source: ATCO, 2020-24 Revised Plan (Access Arrangement Information), 12 June 2019, Table 17.8.*

1738. ATCO stated that its revised proposed tariffs for AA5 confirmed that the expected tariff revenue:

- In net present value terms, equated to total revenue.
- For each tariff class, approximated the forecast total revenue for the tariff class.
- For each tariff class, lay between the lower bound of avoidable cost and the upper bound of standalone costs (Table 183).

**Table 183: ATCO's revised haulage reference service compliance with rule 94(3) of the NGR for AA5 ($ million real as at 31 December 2019)**

| Tariff class | Total costs allocated | Standalone costs | Expected revenue | Avoidable costs |
|---|---|---|---|---|
| A1 | 33.8 | 174.3 | 34.9 | 3.1 |
| A2 | 22.6 | 268.7 | 21.8 | 2.0 |
| B1 | 51.6 | 419.3 | 47.7 | 6.9 |
| B2 | 45.0 | 426.5 | 46.7 | 6.6 |
| B3 | 637.9 | 739.4 | 640.0 | 115.4 |
| Ancillary services | 15.0 | 15.0 | 14.8 | 13.3 |
| **Total** | **805.9** | | **805.9** | |

*Source: ATCO, 2020-24 Revised Plan (Access Arrangement Information), Table 17.9, 12 June 2019.*

1739. ATCO submitted that the tariffs for ancillary services were based on the cost to provide those services and promoted efficient use of the services. The proposed

tariffs for AA5 are unchanged from the tariffs proposed in ATCO's initial proposal (see Table 173) and include:[572]

- the direct cost of operations staff and contractors providing the service
- the direct administration cost of providing the service
- an allocation of corporate costs such as accounting services and IT services.

1740. In response to Kleenheat's submission on ATCO's initial proposal on special meter reading charges, ATCO noted that its special meter reading charge was "marginally above the national average (excluding Central Ranges [Gas Network], which appears to be an outlier)."[573]

## *Submissions to the ERA*

1741. Several submissions to the ERA addressed ATCO's initial proposal for reference tariffs.[574] The ERA considered these submissions as part of the draft decision (see paragraph 1710).

1742. The ERA received four submissions in response to the draft decision and ATCO's revised proposal that addressed the matter of reference tariffs.

- AGL Energy acknowledged that the ERA's draft decision reduced the first year of the AA5 price path. However, AGL still considered the increase in 2020 to be significant. AGL further submitted that:

  > AGL recognises ATCO and the ERA are largely constrained from resolving this situation by the current framework but would not like a similar situation to occur. AGL encourages the ERA to consider regulatory options for reviewing and adjusting a price path during an access arrangement period in order to ensure that there are not substantial price changes across periods in the future. AGL is happy to work with the ERA and ATCO on such a reform.[575]

- Kleenheat submitted that its view remained consistent with its previous submission – while AA5 should provide reasonable returns for ATCO, it was important for customers, and for the broader business community, that access to the GDS remained affordable. Kleenheat expressed concerns over the proposed large increases in reference tariffs by ATCO and the effect this would have on households and businesses.[576]
- Origin Energy was pleased that ATCO accepted most the ERA's draft decision amendments to the access arrangement. It noted that this resulted in a smaller increase to the annual network bill for B3 (residential) customers in 2020 (around 13 per cent) compared to the 24.1 per cent that was originally proposed. Origin submitted that "while still significant, the increase [would] be more palatable to customers and assist in maintaining the competitiveness of retail as market prices vis-à-vis alternative energy sources."[577]
- Synergy supported the ERA's draft decision and considered "the reduced tariff increase to be reasonable with the revised step change quantum in the first year of AA5 (7.56%) reflecting that 2019 tariffs that were set below the

[572] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 249.

[573] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 250.

[574] Submissions from Alinta Energy, AGL Energy, Kleenheat and Synergy.

[575] AGL Energy submission, 9 July 2019.

[576] Kleenheat submission, 9 July 2019.

[577] Origin Energy submission, 9 July 2019.

expected cost of service for that year." Synergy noted that ATCO's revised tariff increases of 10.6 per cent in 2020 and 2.3 per cent in subsequent years were not significantly different from the ERA's draft decision, but "rather than being as a result of a conscious effort by ATCO to modify its plans to reflect stakeholder concerns and price shock, ATCO's revised pricing proposal results from a materially reduced rate of return of 4.87%." Synergy expressed concerns over ATCO not addressing the underlying drivers of price increases identified by stakeholders and the ERA. Synergy submitted that ATCO had instead relied on a reduction in the rate of return which was being driven by market conditions.[578]

## *Final decision*

1743. The ERA reviewed the submissions provided in response to the draft decision. The submissions from retailers were focussed on the size of the haulage tariff increases proposed by ATCO in response to the draft decision. The size of the tariff increase is a result of total revenue required by ATCO and current (2019) tariffs.

1744. The current (2019) tariffs were set below cost-reflective levels due to a delay in the start of the previous access arrangement (AA4). A consideration in tariff setting was the tariff path during AA5 and to ensure that forecast tariffs were set at levels close to the cost-reflective level in the final year of AA5 (2024). This is further discussed below (at paragraph 1761).

1745. In making its final decision, the ERA acknowledges the comments from interested parties on the size of ATCO's proposed tariff increases for residential customers. The Local Regulations require consideration to be given to the effects on small use customers and retailers who supply small use customers. The ERA has considered these effects. The Local Regulations do not, however, permit the ERA to approve or make an access arrangement that does not include a reference tariff variation mechanism that complies with rule 92 of the NGR (that is, the requirement that ATCO must be allowed to recover the forecast revenue from reference services during the access arrangement period (regulation 7(4) of the Local Regulations)).

1746. The forecast revenues from reference tariffs for haulage and ancillary services discussed below are derived to equalise (in terms of present value) the portion of total revenue allocated to these services, as required by rule 92(2) of the NGR. The portion of total revenue allocated to these services is provided in present value terms in Table 184.

**Table 184: ERA final decision total revenue allocated to reference services for AA5**

| | Nominal $ millions present value |
|---|---|
| Haulage reference services – tariffs | 725.55 |
| Haulage reference services – prudent discounts | 1.08 |
| Ancillary reference services | 15.49 |

*Source: ERA, Final Decision Appendix 5, GDS Tariff Model, November 2019.*

[578] Synergy submission, 10 July 2019.

### *Haulage reference service tariffs*

1747. The ERA has maintained its draft decision position that ATCO's proposed tariff structure and classes are consistent with the NGR. ATCO retained the same tariff structure and classes from AA4. No submissions to the ERA addressed ATCO's tariffs structure and classes.

1748. The ERA reviewed ATCO's revised proposed tariffs against the provisions of rules 92 and 94 of the NGR and the revenue and pricing principles in the NGL. The ERA considered the possible effects of the proposed reference tariffs, the method of determining the tariffs and the reference tariff variation mechanism on small use customers and retailers supplying those customers, as required by Local Regulations. The ERA must approve an access arrangement that includes tariffs that comply with rule 92, which allows ATCO to recover the portion of total revenue allocated to reference services.

1749. The ERA reviewed ATCO's revised proposal tariffs to ensure that the:

- Expected revenue to be recovered from each tariff class is between the avoidable cost of not providing the reference service and the standalone cost of providing the reference.
- Tariffs take into account the long-run marginal cost for the reference service.
- Tariffs recover the efficient costs of service with minimal distortion to efficient pricing signals.
- Effects on small use customers and those that supply small use customers are considered as required by local regulations.
- Forecast revenue to be recovered in the last year of AA5 is plus or minus 3 per cent of total revenue for that year.

1750. Given that ATCO's revised proposed tariffs and tariff path would recover in excess of the expected revenue allocated to the haulage reference service, the ERA assessed other price path options that would best meet the national gas objective, the revenue and pricing principles, rule 92 and rule 94 of the NGR. The ERA used the criteria in paragraph 1749 and applied this to ATCO's pricing intentions while taking account of concerns raised by stakeholders. The ERA considers that the criteria in paragraph 1749, which follow the requirements in the NGR and NGL, are consistent with the national gas objective and revenue and pricing principles.

1751. The gas retailers that responded to the ERA's draft decision expressed support for the lower price increases in the ERA's draft decision.

1752. The ERA has maintained, at least for B3 customers, the approach from the draft decision to follow the price path proposed by ATCO with an initial increase in tariffs in the first year and with smaller increases in each subsequent year. The price path for A1 to B2 customers is relatively constant at around 1.50 per cent to allow the ERA to follow ATCO's pricing objectives. As the ERA has determined a lower total revenue requirement over AA5, the tariff increases in 2020 and subsequent years are much lower than proposed by ATCO. Table 181 shows the tariff increases in percentage terms of ATCO's revised proposal and the ERA's final decision.

**Table 185: ERA final decision tariff path compared to ATCO revised proposal – real annual percentage change in tariffs**

| Tariff | Price change on 1 January 2020 | | Subsequent annual price changes | |
|---|---|---|---|---|
| | Revised proposal | Final decision | Revised proposal | Final decision |
| A1, A2, B1 and B2 | 10.60 | 1.50 | 2.30 | 1.40 |
| B3 standing charge | 0.00 | 0.00 | 0.00 | 0.00 |
| B3 first 1.825 GJ | - | - | - | - |
| B3 volume > 1.825 GJ and < 9.855 GJ | 46.40 | 10.22 | 2.30 | 1.40 |
| B3 volume > 9.855 GJ | 142.20 | 70.62 | 2.30 | 1.40 |

*Source: ERA, Final Decision Appendix 5, GDS Tariff Model, November 2019.*

1753. ATCO's initial proposal was a price increase of 22.4 per cent in real terms to A1, A2, B1 and B2 customers in 2020, with subsequent annual increases of 2.3 per cent in real terms. In its revised proposal, ATCO revised the increase to 10.6 per cent in real terms in 2020 and subsequent annual increases of 2.3 per cent in real terms. ATCO submitted that, given the 2019 expected tariff revenue is below the cost of service and the annual tariff increases of 2.3 per cent from 2021 to 2024, an initial price increase of 10.6 per cent is required, to equate in net present value terms over AA5 the cost of service and expected revenue as required by rules 92(2) and 94(5) of the NGR.[579] The ERA's final decision reduces ATCO's revised increase to 1.50 per cent in real terms in 2020 with subsequent annual increases of 1.40 per cent in real terms. As noted above, some level of increase from the 2019 tariffs is required to move prices to recover the total revenue required during AA5.

1754. While the ERA's final decision B3 volume tariff increases are large, these increases are not as large as ATCO's initial and revised proposals. The final decision B3 volume tariff increases reflect ATCO's approach to not increase the B3 standing charge in real dollars over AA5. This is because ATCO considers that the B3 standing charge now better approximates the fixed costs of serving this tariff class.[580] The standing charge increased significantly during AA4 to transition the fixed charge to recover the avoidable cost of connecting a B3 customer.[581] At the same time there were more than offsetting decreases in the volume tariffs during AA4 to ensure that the average B3 customer received the same overall price decreases as the other tariff categories.[582]

1755. The B3 volume tariff increases for AA5 also reflect the increase from the 2019 tariffs (which were below cost-reflective levels), the need to recover the total revenue during

[579] ATCO, *2020-24 Revised Plan (Access Arrangement Information),* 12 June 2019, p. 246.

[580] ATCO, *2020-24 Revised Plan (Access Arrangement Supporting Information) – 19.1 AA5 Reference Tariffs – Tariff Setting Method PUBLIC*, 12 June 2019.

[581] ERA, *Amended Final Decision on Proposed Revisions to the Access Arrangement for the Mid-West and South-West Gas Distribution Systems*, pp. 485-486, 10 September 2015.

[582] ERA, *Amended Final Decision on Proposed Revisions to the Access Arrangement for the Mid-West and South-West Gas Distribution Systems*, p. 486, 10 September 2015.

AA5, and that ATCO proposed to slightly increase its recovery of tariff revenue from B3 customers.

1756. ATCO targets a recovery of 81 per cent of tariff revenue from B3 customers in present value terms over AA5, which requires an increase in revenue to be recovered from B3 customers relative to other customers groups based on the revenue recovery in 2019. ATCO's recovery is based on its assessment of costs attributable to B3 services.[583] The current standing charge recovers the fixed costs of serving a B3 customer. The volume charges are then designed to better approximate the long-run marginal cost (discussed below at paragraph 1759).

1757. As the B3 standing charge, which is 65 per cent of an average B3 network bill, remains constant, the average B3 customer's network bill will increase by 5.77 per cent in real terms in 2020 and subsequent annual increases of around 0.5 per cent in real terms.[584] The average B3 network bill would be 7.91 per cent higher in 2024 than the current bill in 2019.[585] As a comparison, tariffs for A1 to B2 customers would be around 7.7 per cent higher in 2024 compared to the current tariffs in 2019.

1758. The ERA has considered the effect of the increases to small use customers and retailers supplying those customers as required under the Local Regulations. An increase in tariffs for these customers is required to ensure that ATCO can recover the total revenue required during AA5 as required by the NGR. The ERA has balanced the increase with the need to set tariffs for these customers that are sufficient for ATCO's cost recovery. The ERA notes that as the distribution component of the residential (B3 customer) retail bill is around 27 per cent, it would put pressure on retail bills to increase by around 1.6 per cent in 2020. The maximum retail tariffs for small use customers are set by the WA State Government and independent of this final decision. The ERA considers that the possible effect of the increase on retailers and on small use customers is not significant enough to modify ATCO's pricing structure using the Local Regulations.

1759. While the ERA's final decision increases the average B3 customer's annual network bill in 2020, the average network bill of $173.28 will still be below the annual equivalent bill for the same customer at the start of AA4 of $249.54 in December 2019 dollars. The forecast annual network bill in 2024 ($176.52) for the same customer will also be well below the bill at the start of AA4, subject to the operation of the tariff variation mechanism.

1760. ATCO provided estimates of the long-run marginal cost for reference services by using two methods, the perturbation method (also known as the Turvey method) and the average incremental cost method (Table 186).[586] ATCO noted that it used these estimates of long-run marginal cost as a guide in proposing tariffs for its initial and revised proposal. ATCO considered that a price of around $5 to $6 per GJ would be reasonable in setting the B3 volume > 9.855GJ price to reflect the long-run marginal cost. However, the ERA considers that a price within the range of the perturbation

583 ATCO's initial proposal noted that on a cost allocation basis, 80 per cent of the total cost was attributable to B3 services. ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Supporting information) – Appendix 19.1 AA5 Reference Tariffs – Tariff Setting Method*, Table 4.2, p. 10. ATCO recovers slightly less than the 80 per cent of total revenue. The 81 per cent is calculated by removing prudent discount revenue and ancillary reference service revenue, so the B3 revenue represents a larger proportion of the tariff revenue than it does total revenue.

584 A B3 customer consuming 13.5 GJ of gas per year.

585 The average network bill for a B3 customer is $163.83 in dollars real at 31 December 2019.

586 ATCO Gas Australia, *2020-24 Revised Plan (Access Arrangement Supporting information) – Appendix 19.1 AA5 Reference Tariffs – Tariff Setting Method*, Table 5.3, p. 13.

($1.44 per GJ) and incremental cost method ($5.93 per GJ) is reasonable. As the ERA's total revenue to be recovered from reference services is lower than ATCO's revised proposal, reference tariffs are lower than in ATCO's revised proposal. However, the ERA's final decision B3 volume > 9.855GJ price ($3.60 per GJ in 2020) is within the range of estimates of long-run marginal cost provided by ATCO.

**Table 186: ATCO's AA5 long run marginal cost ($/GJ) real as at 31 December 2019**

| | A1 | A2 | B1 | B2 | B3 |
|---|---|---|---|---|---|
| Average perturbation method | 0.57 | 0.57 | 1.12 | 1.10 | 1.44 |
| Average incremental cost method | 1.43 | 1.56 | 1.98 | 3.96 | 5.93 |

*Source: ATCO Gas Australia, 2020-24 Revised Plan (Access Arrangement Supporting information) – Appendix 19.1 AA5 Reference Tariffs – Tariff Setting Method, Table 5.3, p. 13.*

1761. As noted at paragraph 1746, the ERA's final decision haulage reference service price path will (equalise) recover the total revenue required during AA5 in present value terms, but year to year there will be differences in the tariff revenue and the total revenue. The ERA's calculated tariffs for AA5 would result in the forecast revenue to be recovered in the final year of AA5 (2024) to be 2.82 per cent below the total revenue for that year. This is within the range of plus or minus 3 per cent that ATCO proposed in its initial and revised proposal.[587] The range is arbitrary and there is a level of discretion on what is an acceptable range, if any. However, the ERA considers that a range is acceptable and that it is desirable to ensure that there are not large price swings between access arrangement periods provided that the reference tariffs comply with rule 94 of the NGR. The ERA considers that its decision on reference tariffs is consistent with the national gas objective and the Local Regulations. The ERA considers that the difference between forecast revenue and total revenue for the final year of AA5 based on the ERA's determined tariffs is reasonable and should not result in large price rises in 2025. The actual tariff increases in AA6 will depend on many other factors, but a reasonable expectation based on current information is that this would be close to the total revenue for 2024.

1762. As shown in Table 187, the ERA's calculated tariffs for AA5 are between the avoidable cost and standalone costs calculated by ATCO in its revised proposal and meet rule 94(3) of the NGR. Rule 94(3) of the NGR requires that the reference tariff revenue for each tariff class is between the avoidable and standalone cost for that service.

[587] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 169. ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 244.

**Table 187: ERA final decision haulage reference service compliance with rule 94(3) ($ million present value)**

| Tariff class | Avoidable costs | Expected revenue | Standalone costs |
|---|---|---|---|
| A1 | 3.1 | 31.0 | 174.3 |
| A2 | 2.0 | 20.0 | 268.7 |
| B1 | 6.9 | 43.6 | 419.3 |
| B2 | 6.6 | 42.9 | 426.5 |
| B3 | 115.4 | 588.0 | 739.4 |

*Source: ATCO, 2020-24 Revised Plan (Access Arrangement Information), 12 June 2019, Table 17.9, p.249; ERA, Final Decision Appendix 5, GDS Tariff Model, November 2019.*

1763. Table 188 and Table 189 show the nominal and real haulage reference tariffs calculated by the ERA for AA5. There tariffs are based on the ERA's calculation of total revenue and the allocation of that revenue to haulage reference services (refer to Allocation of Total Revenue section of this final decision). The tariffs are indicative and will vary based on the tariff variation mechanism described in the next section of this final decision. The operation of the tariff variation mechanism changes the prices due to updates to inflation, the annual update of the debt risk premium and cost pass-through events.

**Table 188: ERA's final decision haulage reference tariffs ($ nominal) – indicative only[588]**

| Charging parameter | Units | 1 Jan 2020 | 1 Jan 2021 | 1 Jan 2022 | 1 Jan 2023 | 1 Jan 2024 |
|---|---|---|---|---|---|---|
| **Reference tariff A1** | | | | | | |
| Standing charge | $/year | 33,306.94 | 34,159.83 | 35,034.55 | 35,931.68 | 36,851.77 |
| Demand charges | | | | | | |
| First 10 km | $/GJ km | 140.38 | 143.98 | 147.66 | 151.45 | 155.32 |
| Distance > 10 km | $/GJ km | 73.89 | 75.79 | 77.73 | 79.72 | 81.76 |
| Usage charges | | | | | | |
| First 10 km | $/GJ km | 0.02969 | 0.03046 | 0.03123 | 0.03203 | 0.03286 |
| Distance > 10 km | $/GJ km | 0.01497 | 0.01535 | 0.01575 | 0.01615 | 0.01656 |
| **Reference tariff A2** | | | | | | |
| Standing charge | $/year | 18,429.00 | 18,900.91 | 19,384.90 | 19,881.29 | 20,390.39 |
| First 10 TJ | $GJ | 1.79 | 1.84 | 1.88 | 1.93 | 1.98 |
| Volume > 10 TJ | $GJ | 0.95 | 0.98 | 1.00 | 1.03 | 1.05 |
| **Reference tariff B1** | | | | | | |
| Standing charge | $/year | 931.66 | 955.52 | 979.99 | 1,005.08 | 1,030.82 |
| First 5 TJ | $GJ | 3.54 | 3.63 | 3.72 | 3.82 | 3.92 |
| Volume > 5 TJ | $GJ | 3.04 | 3.12 | 3.20 | 3.28 | 3.37 |
| **Reference tariff B2** | | | | | | |
| Standing charge | $/year | 232.76 | 238.72 | 244.84 | 251.11 | 257.54 |
| First 100 GJ | $GJ | 5.93 | 6.08 | 6.23 | 6.39 | 6.56 |
| Volume > 100 GJ | $GJ | 3.53 | 3.62 | 3.71 | 3.81 | 3.91 |
| **Reference tariff B3** | | | | | | |
| Standing charge | $/year | 118.17 | 119.52 | 120.88 | 122.26 | 123.65 |
| First 1.825 GJ | $GJ | - | - | - | - | - |
| Volume > 1.825 GJ, < 9.855 GJ | $GJ | 5.45 | 5.59 | 5.73 | 5.88 | 6.03 |
| Volume > 9.855 GJ | $GJ | 3.64 | 3.73 | 3.83 | 3.93 | 4.03 |

*Source: ERA, Final Decision Appendix 5, GDS Tariff Model, November 2019.*

[588] The usage charges for B2 and B3 are based on a megajoule per day basis. The approved usage charges for B2 and B3 are to be charged on a megajoule per day basis in the Access Arrangement.

**Table 189: ERA's final decision real haulage reference tariffs for AA5 ($ real as at 31 December 2019) – indicative only[589]**

| Charging parameter | Units | 1 Jan 2020 | 1 Jan 2021 | 1 Jan 2022 | 1 Jan 2023 | 1 Jan 2024 |
|---|---|---|---|---|---|---|
| **Reference tariff A1** | | | | | | |
| Standing charge | $/year | 32,931.52 | 33,394.10 | 33,863.18 | 34,338.84 | 34,821.19 |
| Demand charges | | | | | | |
| First 10 km | $/GJ km | 138.80 | 140.75 | 142.73 | 144.73 | 146.76 |
| Distance > 10 km | $/GJ km | 73.06 | 74.09 | 75.13 | 76.18 | 77.25 |
| Usage charges | | | | | | |
| First 10 km | $/GJ km | 0.02936 | 0.02977 | 0.03019 | 0.03061 | 0.03104 |
| Distance > 10 km | $/GJ km | 0.01480 | 0.01501 | 0.01522 | 0.01543 | 0.01565 |
| **Reference tariff A2** | | | | | | |
| Standing charge | $/year | 18,221.28 | 18,477.23 | 18,736.77 | 18,999.96 | 19,266.85 |
| First 10 TJ | $GJ | 1.77 | 1.79 | 1.82 | 1.85 | 1.87 |
| Volume > 10 TJ | $GJ | 0.94 | 0.95 | 0.97 | 0.98 | 0.99 |
| **Reference tariff B1** | | | | | | |
| Standing charge | $/year | 921.16 | 934.10 | 947.22 | 960.53 | 974.02 |
| First 5 TJ | $GJ | 3.50 | 3.55 | 3.60 | 3.65 | 3.70 |
| Volume > 5 TJ | $GJ | 3.01 | 3.05 | 3.10 | 3.14 | 3.18 |
| **Reference tariff B2** | | | | | | |
| Standing charge | $/year | 230.14 | 233.37 | 236.65 | 239.97 | 243.35 |
| First 100 GJ | $GJ | 5.86 | 5.94 | 6.03 | 6.11 | 6.20 |
| Volume > 100 GJ | $GJ | 3.49 | 3.54 | 3.59 | 3.64 | 3.69 |
| **Reference tariff B3** | | | | | | |
| Standing charge | $/year | 116.84 | 116.84 | 116.84 | 116.84 | 116.84 |
| First 1.825 GJ | $GJ | - | - | - | - | - |
| Volume > 1.825 GJ, < 9.855 GJ | $GJ | 5.39 | 5.47 | 5.54 | 5.62 | 5.70 |
| Volume > 9.855 GJ | $GJ | 3.60 | 3.65 | 3.70 | 3.75 | 3.81 |

*Source: ERA, Final Decision Appendix 5, GDS Tariff Model, November 2019.*

**Required Amendment 13**

Annexure A of the proposed revised access arrangement must be amended to reflect the tariffs set out in Table 189 of this final decision.

### *Ancillary reference service tariffs*

1764. The ancillary reference service tariffs were calculated to recover the cost to provide these services. The cost of these services was discussed at paragraphs 533 to 535.

1765. No submissions in response to the draft decision addressed the ancillary reference service tariffs. The ERA maintains its draft decision position to accept ATCO's reference tariffs for ancillary reference services. However, as noted at paragraphs 266 to 267, the ERA has adjusted ATCO's forecast inflation values to determine 31 December 2019 prices, which is reflected in Table 190.

**Table 190 ERA's final decision reference tariffs for ancillary services for AA5 ($ real as at 31 December 2019)**

| Ancillary service | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Applying a meter lock | 48.85 | 48.85 | 48.85 | 48.85 | 48.85 |
| Removing a meter lock | 26.57 | 26.57 | 26.57 | 26.57 | 26.57 |
| Deregistering a delivery point | 121.82 | 121.82 | 121.82 | 121.82 | 121.82 |
| Disconnecting a delivery point | 97.35 | 97.35 | 97.35 | 97.35 | 97.35 |
| Reconnecting a delivery point | 137.81 | 137.81 | 137.81 | 137.81 | 137.81 |
| Special meter reading | 12.74 | 12.74 | 12.74 | 12.74 | 12.74 |

*Source: ERA, Final Decision Appendix 5, GDS Tariff Model, November 2019.*

**Required Amendment 14**

The ancillary reference service tariffs should be amended to reflect the tariffs set out in Table 190 of this final decision.

## *Tariff variation mechanism*

1766. Rule 92 of the NGR requires ATCO to include 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):

- The forecast revenue from reference services over the access arrangement period.
- The portion of total revenue allocated to reference services for the access arrangement period.

[589] The usage charges for B2 and B3 are based on a megajoule per day basis. The approved usage charges for B2 and B3 are to be charged on a megajoule per day basis in the Access Arrangement.

1767. Rule 97 of the NGR specifies the requirements (or *mechanics*) for reference tariff variations.

> **97 Mechanics of reference tariff variation**
>
> (1) A reference tariff variation mechanism may provide for variation of a reference tariff:
>
> (a) in accordance with a schedule of fixed tariffs; or
>
> (b) in accordance with a formula set out in the access arrangement; or
>
> (c) as a result of a cost pass through for a defined event (such as a cost pass through for a particular tax); or
>
> (d) by the combined operation of 2 or more or the above.
>
> (2) A formula for variation of a reference tariff may (for example) provide for:
>
> (a) variable caps on the revenue to be derived from a particular combination of reference services; or
>
> (b) tariff basket price control; or
>
> (c) revenue yield control; or
>
> (d) a combination of all or any of the above.
>
> (3) In deciding whether a particular reference tariff variation mechanism is appropriate to a particular access arrangement, the [ERA] must have regard to:
>
> (a) the need for efficient tariff structures; and
>
> (b) the possible effects of the reference tariff variation mechanism on administrative costs of the [ERA], the service provider, and users or potential users; and
>
> (c) the regulatory arrangements (if any) applicable to the relevant reference services before the commencement of the proposed reference tariff variation mechanism; and
>
> (d) the desirability of consistency between regulatory arrangements for similar services (both within and beyond the relevant jurisdiction); and
>
> (e) any other relevant factor.
>
> (4) A reference tariff variation mechanism must give the [ERA] adequate oversight or powers of approval over variation of the reference tariff.
>
> (5) Except as provided by a reference tariff variation mechanism, a reference tariff is not to vary during the course of an access arrangement period.

## *ATCO's initial proposal*

1768. ATCO's proposed reference tariff variation mechanism for haulage and ancillary reference services is set out in Annexure B and C of the proposed access arrangement.

1769. For haulage reference services, ATCO proposed to "implement a tariff variation mechanism that places a constraint on the overall average movement in haulage reference service prices from one year to the next (referred to as a weighted average price cap, or tariff basket)."[590] The mechanism allows average prices to increase by the annual change in CPI (weighted average across eight capital cities), plus or minus

[590] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 183.

an X-factor that is varied for debt risk premium updates and cost pass through items. This form of tariff variation has been used for the A1, A2 and B1 tariff classes during AA4 and was used for all tariff classes in previous access arrangement periods (prior to AA4). ATCO submitted that:[591]

> [The use of] a price cap provides an incentive for the business to increase customer connections and usage, as this generates additional revenue. In future access arrangement periods, customers benefit from costs being spread over a larger number of customers and volume.
>
> In comparison, a revenue cap does not provide any incentive to grow the network for the benefit of customers; revenue remains constant regardless of the growth of the network. Therefore, a price cap form of control is preferable to provide the incentive to grow the network in the long-term interests of consumers.

1770. ATCO proposed to retain the AA4 cost pass through items for AA5, with the exception of "capex related to 'intermediate' security of supply, which was a specific item for AA4."[592] A new cost pass through item to recover any costs that are recoverable under the proposed Network Innovation Scheme has been introduced. Hence, ATCO's proposed cost pass through items for AA5 included:

- Higher heating value (HHV) and gate point costs for new gas inflows to the network.
- Any costs relating to a change in law or tax change.
- Any costs associated with a tax, fee, law or emissions trading scheme for greenhouse gas emissions.
- Any costs that are recoverable under the proposed Network Innovation Scheme.

1771. For ancillary reference services, ATCO proposed to vary tariffs annually by the movement in CPI (weighted average across eight capital cities). This is the same form of tariff variation that was used for AA4.[593]

## *Draft decision*

1772. ATCO's proposed weighted average price cap for all reference services for AA5 was the same approach used for AA4, but with the B2 and B3 tariff classes included in the price cap. The inclusion of B2 and B3 tariff classes was consistent with the approach used in all access arrangements prior to AA4, where one price cap was used. For AA4, the B2 and B3 tariff classes had their own separate price caps.

1773. The ERA received one public submission on the proposed approach to the tariff variation mechanism – from Alinta Energy – supporting ATCO's proposal.[594] In the absence of any other reason to amend the approach, the ERA considered that ATCO's proposed weighted average price cap for all reference services met the requirements of rule 97 of the NGR. However, the formula in Annexure B of the access arrangement needed to be amended to specify that the B3 fixed charge will remain constant in real dollars over the access arrangement period. The current

591 ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 183.

592 ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 184.

593 ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 183.

594 Alinta Energy submission, 14 November 2018.

formula does not account for this proposal by ATCO to retain the B3 fixed charge constant in real terms over AA5.

1774. The ERA considered ATCO's proposed Network Innovation Scheme elsewhere in its draft decision (see paragraph 1792). Consistent with the ERA's draft decision to not allow the scheme (see paragraph 1834) the proposed cost pass through item for any costs that are recoverable under the scheme needed to be deleted.

> **Draft Decision Required Amendment 15**
>
> ATCO must amend Annexure B, clause 1.3.1 to specify that the B3 fixed charge will remain constant in real terms.
>
> ATCO must delete the cost pass through item detailed in Annexure B, clause 2.1(e) of the proposed revised access arrangement.

1775. ATCO's proposed tariff variation mechanism for ancillary reference services for AA5 was the same mechanism currently used for AA4. There were no submissions from interested parties seeking any amendments to the mechanism. For these reasons, and in the absence of any other reason to amend the mechanism, the ERA considered that ATCO's proposed tariff variation mechanism for ancillary reference services met the requirements of rule 97 of the NGR.

## *ATCO's response to the draft decision*

1776. ATCO accepted the ERA's draft decision required amendment (15) to:

- Amend Annexure B (clause 1.3.1) of the access arrangement to specify that the B3 fixed charge will remain constant in real terms.
- Delete the cost pass through item in Annexure B (clause 2.1(e)) of the access arrangement that deals with expenditure under the (proposed) network innovation scheme.

1777. ATCO's revised proposal was consistent with its initial proposal. ATCO maintained the proposed weighted average price cap tariff variation mechanism, which allows for:[595]

- An annual adjustment for CPI (weighted average across eight capital cities).
- An X-factor based on the approved price path and amendments to the ERA's AA5 final decision tariff model, which will incorporate cost pass through items and annual updates to the debt risk premium.[596]

### *Tariff variation by formula*

1778. ATCO proposed to implement a tariff variation mechanism that placed a constraint on the overall movement in haulage reference service prices from one year to the next (referred to as a weighted average price cap or tariff basket). ATCO submitted:[597]

- This form of tariff variation was used during prior access arrangement periods.

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595 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 252.

596 ATCO states that "the method of annually updating the debt risk premium is consistent with the ERA's rate of return instrument" (ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, p. 252).

597 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 254.

- The tariff variation:
  - Allowed average prices to increase by the annual change in CPI, plus or minus the X-factor varied for debt risk premium updates and cost pass through items.
  - Provided an incentive for the business to increase customer connections and usage because this generates additional revenue; and in future access arrangement periods, customers benefit from the costs being spread over a larger customer base.

1779. Ancillary reference services will continue be varied annually by the movement in CPI (as per the current access arrangement).

***Cost pass through***

1780. ATCO's proposed tariff variation mechanism allows the costs of cost pass through events to be recovered. Cost pass through events are events that:

- incur costs that cannot be, and have not been, reasonably forecast
- are beyond the control of ATCO
- relate to the provision of reference services.

1781. ATCO submitted that "the recovery of costs related to cost pass through events is made by recalculating the X-factor in the ERA's final decision tariff model taking into account of those cost pass through items".[598] ATCO amended Annexure B (clause 2) of the access arrangement to ensure any cost pass through items not recovered during AA4 were recovered in AA5. It submitted:[599]

> For administrative ease this will most likely be done by inclusion in the tariff variation year 2021 as that is the first year when all cost pass through items to the end of AA4 will be known. This action is in accord with the fixed principle 11.3 of AA4, which has been retained into the revised proposed Access Arrangement.

1782. ATCO's proposed revised amendments are set out below.

> **2.2. Variation of Haulage Tariffs**
>
> If a Cost Pass Through Event occurs in the Current Access Arrangement Period, or occurred between 1 October 2018 to 31 December 2019, ATCO Gas Australia:
>
> a) must …
>
> **2.3. Next Access Arrangement Period**
>
> If ATCO Gas Australia varies a Reference Tariff in accordance with clause 2.2 above, the costs referred to in clause 2 will be:
>
> a) added to the Opening Capital Base for the Next Access Arrangement Period, after adjustment for any depreciation during the Current Access Arrangement Period or between 1 October 2018 to 31 December 2019 (as the case may be), if they are Conforming Capital Expenditure; and
>
> b) added …

[598] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 254.

[599] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 254.

## *Submissions to the ERA*

1783. Alinta's submission to the ERA addressed ATCO's initial proposal to include B2 and B3 customers into the weighted average price cap (or tariff basket).[600] This submission was considered as part of the ERA's draft decision.

1784. There were no other submissions in response to the draft decision or ATCO's revised proposal that addressed the tariff variation mechanism.

## *Final decision*

1785. ATCO agreed with the ERA's draft decision required amendment 15 and made the required amendments to the revised access arrangement (see paragraph 1774). Further to these amendments, ATCO amended the drafting of Annexure B, clauses 2.2 and 2.3, of the revised access arrangement to clarify that haulage tariffs will vary as a result of a cost pass through event that occurs in the current access arrangement period *or* during the period between 1 October 2018 to 31 December 2019.

1786. ATCO's revised amendments to clauses 2.2 and 2.3 reflect the intended operation of the tariff variation mechanism. That is, ATCO can recover costs from cost pass through events that occur during the access arrangement period through the tariff variation mechanism. The period 1 October 2018 to 31 December 2019 represents the final 15 months of the current (AA4) access arrangement period and corresponds to the period outside the last annual tariff variation for AA4. The last annual tariff variation for the GDS was published in November 2018 and covered the tariffs that would apply in 2019 (being the last year of AA4).[601] In determining the tariff components for 2019, ATCO identified and included the costs associated with cost pass through events up to the end of September 2018 and not already recovered in prior tariff variations.

1787. There were no submissions from interested parties in response to the draft decision or ATCO's revised proposal.

1788. Given the above considerations, and in the absence of any other reason to amend the mechanism, the ERA considers that ATCO's proposed tariff variation mechanism meets the requirements of rule 97 of the NGR.

[600] Alinta Energy submission, 14 November 2018, p. 5.

[601] ATCO's 2019 tariff variation report is available on the ERA's website (accessed August 2018).

# Incentive mechanisms

1789. Rule 98 of the NGR provides that a full access arrangement may include incentive mechanisms.

> **98 Incentive mechanism**
>
> (1) A full access arrangement may include (and the [ERA] may require it to include) one or more incentive mechanisms to encourage efficiency in the provision of services by the service provider.
>
> (2) An incentive mechanism may provide for carrying over increments for efficiency gains and decrements for losses of efficiency from one access arrangement period to the next.
>
> (3) An incentive mechanism must be consistent with the revenue and pricing principles.

1790. The revenue and pricing principles referred to in rule 98(3) of the NGR are set out in section 24 of the NGL.

> **24 Revenue and pricing principles**
>
> (1) The revenue and pricing principles are the principles set out in subsections (2) to (7).
>
> (2) A service provider should be provided with a reasonable opportunity to recover at least the efficient costs the service provider incurs in–
>
> (a) providing reference services; and
>
> (b) complying with a regulatory obligation or requirement or making a regulatory payment.
>
> (3) A service provider should be provided with effective incentives in order to promote economic efficiency with respect to reference services the service provider provides. The economic efficiency that should be promoted includes–
>
> (a) efficient investment in, or in connection with, a pipeline with which the service provider provides reference services; and
>
> (b) the efficient provision of pipeline services;
>
> (c) the efficient use of the pipeline.
>
> (4) Regard should be had to the capital base with respect to a pipeline adopted–
>
> (a) in any previous–
>
> (i) full access arrangement decision; or
>
> (ii) decision of a relevant Regulator under section 2 of the Gas Code;
>
> (b) in the Rules.
>
> (5) A reference tariff should allow for a return commensurate with the regulatory and commercial risks involved in providing the reference service to which that tariff relates.
>
> (6) Regard should be had to the economic costs and risks of the potential for under and over investment by a service provider in a pipeline with which the service provider provides pipeline services.

(7) Regard should be had to the economic costs and risks of the potential for under and over utilisation of a pipeline with which a service provider provides pipeline services.

1791. Rules 79 and 91 of the NGR govern the approval of capital and operating expenditure respectively as part of an access arrangement revision proposal.

**79 New capital expenditure criteria**

(1) Conforming capital expenditure is capital expenditure that conforms with the following criteria:

(a) the capital 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 providing services;

(b) the capital expenditure must be justifiable on a ground stated in subrule (2).

(2) Capital expenditure is justifiable if:

(a) the overall economic value of the expenditure is positive; or

(b) 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; or

(c) the capital expenditure is necessary:

(i) to maintain and improve the safety of services; or

(ii) to maintain the integrity of services; or

(iii) to comply with a regulatory obligation or requirement; or

(iv) to maintain the service provider's capacity to meet levels of demand for services existing at the time the capital expenditure is incurred (as distinct from projected demand that is dependent on an expansion of pipeline capacity); or

(d) the capital expenditure is an aggregate amount divisible into 2 parts, one referable to incremental services and the other referable to a purpose referred to in paragraph (c), and the former is justifiable under paragraph (b) and the latter under paragraph (c).

(3) In deciding whether the overall economic value of capital expenditure is positive, consideration is to be given only to economic value directly accruing to the service provider, gas producers, users and end users.

(4) In determining the present value of expected incremental revenue:

(a) a tariff will be assumed for incremental services based on (or extrapolated from) prevailing reference tariffs or an estimate of the reference tariffs that would have been set for comparable services if those services had been reference services; and

(b) incremental revenue will be taken to be the gross revenue to be derived from the incremental services less incremental operating expenditure for the incremental services; and

(c) a discount rate is to be used equal to the rate of return implicit in the reference tariff.

(5) If capital expenditure made during an access arrangement period conforms, in part, with the criteria laid down in this rule, the capital expenditure is, to that extent, to be regarded as conforming capital expenditure.

(6) The AER's discretion under this rule is limited.

…

**91 Criteria governing operating expenditure**

(1) 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.

(2) The AER's discretion under this rule is limited.

## *ATCO's initial proposal*

1792. ATCO proposed to introduce an incentive mechanism – the Network Innovation Scheme – in the access arrangement for the fifth access arrangement period (AA5). ATCO stated the objective of the proposed scheme as:[602]

> 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.

1793. Under the scheme, ATCO would be able to recover up to $1 million of expenditure incurred on eligible innovation-focused projects for each year of the next access arrangement period.[603] The eligible expenditure would be recovered through the annual tariff variation mechanism.

1794. ATCO submitted that innovation was important because it enabled distributors to deliver services that were in the long-term interest of gas customers.[604]

1795. ATCO submitted that the innovation expenditures to be funded by the proposed scheme would also enable it to achieve greater operational efficiency. ATCO considered that the prevailing energy market dynamics necessitated innovation by gas networks, citing as examples innovations focused on:[605]

- Handling different blends of gas (including hydrogen and biogas, as opposed to just natural gas) as part of the decarbonisation of the energy supply.
- Providing enhanced services, such as energy storage, to meet the evolving needs and expectations of current and prospective customers.

1796. ATCO identified four innovation goals that it proposed to target through eligible projects.[606]

- Long term efficiency improvements: Focussed on exploiting opportunities to improve the efficiency of network services over the long-term.
- Zero-emission gas readiness: Focussed on ensuring that the gas distribution system is ready to receive, transport, deliver, monitor, and meter alternative gases such as hydrogen for the long-term benefit of gas consumers.

602 ATCO, *2020-24 Plan (Access Arrangement Information), Attachment 17.2 Network Innovation Scheme Explanatory Memorandum*, 31 August 2018, p. 2.

603 ATCO proposed that the amount would be CPI-indexed each year to maintain its value in real terms.

604 ATCO, *2020-24 Plan (Access Arrangement Information),* 31 August 2018, p. 148.

605 ATCO, *2020-24 Plan (Access Arrangement Information),* 31 August 2018, p. 150.

606 ATCO, *2020-24 Plan (Access Arrangement Information),* 31 August 2018, p. 153.

- Making gas a stronger complement to electricity network services: Focussed on positioning the GDS [gas distribution system] to be a compelling complement to electricity services.
- Tracking and understanding transformative [information and communications technologies] opportunities: Focussed on identifying and understanding transformative information and communications technology opportunities that would help the business to maximise efficiency through timely and well-informed adoption.

1797. ATCO proposed to apply eligibility criteria to ensure projects undertaken through the scheme met the scheme's objective. The proposed eligibility criteria included:[607]

- 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
  - 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.

1798. Given the project criteria and innovation goals, ATCO suggested that the scheme could fund the following types of projects, among others:[608]

- pre-feasibility studies
- desktop technology and market opportunity assessments
- feasibility assessments
- engineering studies
- service and business model development
- market research

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

[608] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 154.

- field trials and demonstration projects.

1799. ATCO proposed that the scheme would be administered by the ERA as follows.

- The ERA would review scheme projects and proposals on an annual basis.
- ATCO would submit annual reports on its activities, expenditure and projects undertaken under the scheme to the ERA. ATCO's annual compliance report would be required to be supported by certification that the report was accurate and complete.
- The ERA would conduct ex-post reviews to determine the compliance of ATCO's trials and projects with scheme eligibility criteria and therefore their eligibility to receive scheme funding.
- In addition to ex-post approval, 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 remained likely to benefit consumers in Western Australia.
- The scheme allowance would provide funding only for projects that had not been funded by another source (for example, approved regulatory expenditure, Australian Renewable Energy Agency grants).
- Eligible projects could be funded across regulatory years and periods provided the total scheme allowance was not exceeded in any access arrangement period.
- The ERA would review the size of the scheme allowance as part of each access arrangement determination.

1800. ATCO's reasoning for proposing the scheme was that it would enable small-scale innovation expenditures that ATCO considered did not in general qualify as approved expenditure under the prudence and efficiency tests for capital and operating expenditure set out in the NGR (rules 79 and 91).[609] ATCO considered that the project funding provided by the scheme would enable innovation-related projects to be developed to the stage where they were more likely to qualify as approved expenditure.

1801. ATCO's view was that the innovation expenditures it proposed to fund via the scheme would not generally qualify as approved expenditure due to the following:

- The risk associated with innovation, which required businesses to incur up-front costs in the short to medium-term on initiatives with uncertain long-term payoffs. ATCO emphasised that, compared to conventional network investment projects, innovation projects carried a higher degree of uncertainty regarding the future benefits of the expenditures incurred.

[609] ATCO expressed the same opinion in its public submission to the Australian Energy Regulator regarding Australian Gas Networks' and AusNet Services' Victorian gas networks access arrangements for 2018-2022. ATCO, *Submission to Victorian Gas Networks (Australian Gas Networks and Ausnet Services) Access Arrangement 2018-22*, 3 March 2017, p. 3.

- Regulated businesses were generally incentivised under regulatory frameworks to focus on short-term projects aimed at ensuring cost containment and building operational efficiencies within a single access arrangement period, as opposed to innovation projects that deliver benefits and foster dynamic efficiency over multiple access arrangement periods.[610]

1802. With respect to the current regulatory framework, ATCO considered that:[611]

> The existing national gas regulatory framework is not designed to provide strong incentives for network innovation, particularly leading-edge technologies associated with potentially major changes in future gas network services provision, because it assumes a stable and predictable energy market and no fundamental change in network service provision.

1803. ATCO considered that the returns provided to service providers under the current regulatory framework did not sufficiently compensate service providers for the research and development risk of innovation-related expenditures.[612] ATCO emphasised that the revenue and pricing principles included that a service provider should be provided with effective incentives so as to promote economic efficiency in the reference services it provided.

## *Draft decision*

1804. All public submissions to the ERA covering the proposed incentive mechanism in ATCO's initial proposal said that the benefits of the mechanism to consumers were a relevant consideration as to whether (or not) it should be approved. This view was also reflected in a decision by the Australian Energy Regulator (AER), as outlined in paragraph 1806.

1805. In view of the relevant requirements of the NGR and the comments raised through public submissions, the ERA considered the following matters to form its decision on ATCO's proposed incentive mechanism:

- Whether the proposed scheme was an acceptable incentive mechanism under rule 98 of the NGR. The wording in rule 98 is broad and does not specify the types of mechanisms that can be proposed. The rule does, however, require the incentive mechanism to be consistent with the revenue and pricing principles. The ERA therefore considered whether the proposed scheme would satisfy the revenue and pricing principles.
- Whether the proposed scheme would contribute to the achievement of the national gas objective. The ERA considered the likely distribution of the costs and benefits of the proposed scheme. Rule 100 and section 28 of the NGL set the general requirement, applicable to incentive mechanisms, for the ERA to exercise its regulatory functions in a manner that will, or is likely to, contribute to the achievement of the national gas objective. The national gas objective 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".

610 ATCO, *2020-24 Plan (Access Arrangement Information),* 31 August 2018, p. 149 and *Attachment 17.1 Network Innovation Scheme for ATCO*, p. 30.

611 ATCO, *2020-24 Plan (Access Arrangement Information), Attachment 17.1 Network Innovation Scheme for ATCO*, p. 3.

612 ATCO, *2020-24 Plan (Access Arrangement Information),* 31 August 2018, p. 148.

- Incentives for innovation spending under the current regulatory framework and the adequacy of existing incentives.
- The ERA considered rule 97 of the NGR, which is the rule applicable to the mechanics of reference tariff variation, given that ATCO proposed that it would recover the approved scheme expenditures through the annual reference tariff variation mechanism.

1806. In its initial proposal, ATCO addressed a draft decision made by the AER that did not approve a similar network innovation scheme proposed by Australian Gas Networks (AGN).[613] The AER rejected AGN's proposed scheme on the basis that:

- The existing regulatory framework already provided sufficient opportunity for the service provider to invest in innovation while allowing the business to retain efficiency benefits.
- It was unclear that the proposed incentive mechanism would serve the long-term interests of consumers.
- The AER also took into consideration the Capital Expenditure Sharing Scheme, accepted by the AER as part of the same draft decision wherein AGN's proposed innovation scheme was not approved. The AER's view was that an incentive mechanism must be considered in light of other incentives available to the service provider under the applicable access arrangement.[614]

1807. The AER further noted the following disadvantages and costs with implementing AGN's proposed scheme:[615]

- Transaction and enforcement costs associated with the introduction and implementation of an innovation scheme.
- Higher prices for consumers in the short-term, with no guaranteed efficiency gains in the long-term.

1808. In the draft decision, the ERA stated that relevant considerations for approving incentive mechanisms included the long-term interests of consumers and the incentives available to the service provider. This view aligned with the national gas objective and the revenue and pricing principles, which both specified that an access arrangement must incentivise economic efficiency in the use and operation of pipelines with which service providers provide reference services, and economic efficiency in investment in pipelines.

### *Whether the proposed scheme is an acceptable incentive mechanism under rule 98 of the NGR*

1809. As required by rule 98, the ERA considered whether ATCO's proposed incentive mechanism was consistent with the revenue and pricing principles. Rule 98 also

613 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. AGN accepted the AER's draft decision, wherein AGN's proposed incentive mechanism was not approved, and thus the AER's view on AGN's proposed scheme was not further outlined in the subsequent final decision. Australian Gas Networks, *Revised Final Plan, Revised Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 to 2022*, August 2017, p. i, p. 2.

614 Australian Energy Regulator, *Final Decision: Australian Gas Networks access arrangement 2016 to 2021, Attachment 14 – Other incentive schemes*, May 2016, p. 8.

615 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. 15-16.

specifies that an incentive mechanism may provide for carrying over increments for efficiency gains and decrements for losses of efficiency from one access arrangement period to the next. However, the proposed network innovation scheme did not include such a provision and thus this was not a relevant consideration.

1810. The revenue and pricing principles in section 24 of the NGL state that:

- A service provider should be provided with a reasonable opportunity to recover at least the efficient costs the service provider incurs in providing reference services (section 24(2)(a)).
- A service provider should be provided with effective incentives in order to promote economic efficiency with respect to the reference services the service provider provides. The economic efficiency that should be promoted includes efficient investment in, or in connection with, a pipeline with which the service provider provides reference services (section 24(3)(a)).

1811. The ERA therefore considered whether scheme funding under the proposed incentive mechanism would lead to the recovery of the efficient costs of providing reference services by ATCO and whether the scheme would promote economic efficiency in the provision of reference services by ATCO.

1812. The ERA concluded that Part 12 of the proposed access arrangement provided insufficient checks and balances to ensure that scheme expenditure would promote the provision of reference services in an economically efficient manner. Although Part 12.3(h)(i) of the proposed access arrangement stated that the ERA would approve the recovery of eligible expenditures if the ERA was satisfied the expenditure was incurred efficiently, it would be difficult for the ERA to assess whether the expenditure represented efficient costs. The ERA concluded that the efficiency of the proposed expenditure would likely be difficult to assess and involve some subjectivity because the stated objective of the scheme was to provide funding for projects using innovative and new technologies.

1813. Similarly, the reporting requirements of the scheme in Part 12.6 outlined ATCO's requirements to provide information to the ERA only in broad terms. The ERA was not satisfied that, based on those broad reporting requirements, the ERA would receive the information necessary to assess the efficient costs for proposed scheme projects.

1814. The ERA concluded that the incentive mechanism proposed by ATCO did not satisfy the revenue and pricing principles.

### *Whether the proposed scheme would contribute to the achievement of the national gas objective*

1815. The ERA considered whether the proposed scheme was consistent with the national gas objective. Rule 100 of the NGR sets out a general requirement that the provisions of an access arrangement must be consistent with the national gas objective.

> **100 General requirement for consistency**
>
> The provisions of an access arrangement must be consistent with:
>
> (a) the national gas objective; and

(b) these rules and the Procedures in force when the terms and conditions of the access arrangement are determined or revised.

1816. The effect of rule 100 is reinforced by section 28(1)(b)(iii)(A) of the NGL, which specifies that if the ERA is making a designated reviewable regulatory decision, and there are two or more possible decisions that will or are likely to contribute to the achievement of the national gas objective, then the ERA must make the decision that "will or is likely to contribute to the achievement of the national gas objective to the greatest degree". The ERA therefore considered that the rules and law required the ERA to evaluate the proposed provisions of an access arrangement, including any relating to incentive mechanisms, in terms of their potential contributions to the long-term interests of natural gas consumers.

1817. The national gas objective defines the interests of consumers broadly, being the "interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply". The ERA concluded that the regulatory framework did not prevent approval of high-risk projects as ATCO submitted, though the ERA must nonetheless consider the extent to which the projects contributed to the achievement of the national gas objective. Similarly, the ERA concluded that the regulatory framework allowed for the consideration of non-price outcomes, for example, security of supply, when deciding whether (or not) to approve capital and operating expenditure.

1818. The ERA identified that the following aspects of ATCO's proposed innovation scheme were relevant to assessing the extent to which the scheme would contribute to realisation of the national gas objective.

- The costs and risks of innovation projects funded under the scheme would be borne entirely by consumers, while the distribution of the benefits of the projects funded (including how they will be shared with consumers) was not clear.
- The scheme would require the ERA to incur recurrent costs for conducting the administration and compliance of the scheme.
- The scheme administration and eligibility criteria left a degree of uncertainty as to how the scheme would operate.

1819. ATCO proposed to recover the approved scheme expenditure through the annual reference tariff variation mechanism, which would have resulted in the eligible expenditure being funded entirely by gas consumers and ATCO effectively bearing none of those costs. The implication of this distribution of project costs would have been that consumers would have assumed all the risks of the funded projects.

1820. Another implication of the proposed distribution of project costs would be that existing users would effectively fund projects with uncertain benefits which, if realised, would benefit future users. Alinta Energy submitted that the costs of individual projects under ATCO's proposed innovation scheme should be recovered only from those users who would benefit from the projects.[616]

1821. As outlined above (paragraphs 1815 and 1816), the NGR and the NGL required the ERA to evaluate whether the proposed scheme would, or was likely to, further the long-term interests of consumers of natural gas with respect to either price, quality, safety, reliability and security of supply. Based on ATCO's proposal, the ERA was

[616] Alinta Energy submission, 14 November 2018, p. 6.

not satisfied that a share of the benefits arising from scheme expenditures would flow to gas consumers, what the share would be, how this would flow to consumers and the distribution of these benefits among consumers.

1822. AGL Energy's submission questioned how any benefits of the scheme would be accrued and shared between ATCO and consumers in the future. AGL considered that it was unclear that consumers would share in any benefits arising from eligible expenditures, including the benefits of projects that ATCO stated may take a long time to realise.

1823. The scheme would have also required the ERA to expend resources to administer the scheme, including recurrent costs to assess ATCO's proposals for eligible projects and costs to conduct ongoing reviews for scheme compliance. To apply the project eligibility criteria proposed, the ERA would have been required to engage extensive specialist knowledge, which would be a significant recurring expense of administering the scheme relative to the amount of project funding available under the scheme. As the ERA concluded it was not satisfied that consumers would share in the likely benefits of eligible projects, the ERA concluded that these costs were not justified.

1824. The ERA concluded that Part 12 of ATCO's proposed access arrangement did not provide sufficient checks and balances to ensure that scheme expenditure would align with the stated scheme objective. The ERA would have been required to engage extensive specialist knowledge to reliably apply the proposed eligibility criteria, and the judgement of projects against the eligibility criteria would nonetheless involve subjectivity. Similarly, the reporting requirements of the scheme (detailed in Part 12.6 of the proposed access arrangement) outlined the requirements on ATCO to provide information to the ERA only in broad terms. The ERA was not satisfied that, based on those broad reporting requirements, the ERA would be provided with the information necessary to assess qualifying expenditure, expenditure recovery and indicative approval as the ERA would be required under Parts 12.2 to 12.4 of the proposed access arrangement.

### *Incentives for innovation spending under the current regulatory framework and the adequacy of existing incentives*

1825. As stated in paragraphs 1800 and 1801, ATCO's view was that the current regulatory framework prevented innovation expenditure which would contribute to the realisation of the national gas objective. AGL Energy, on the other hand, questioned whether that was the case.[617]

1826. As stated in paragraphs 1810, 1815 and 1816, the ERA considered whether the proposed scheme was consistent with the revenue and pricing principles, and whether it would contribute to the achievement of the national gas objective, when deciding whether (or not) to approve the proposed scheme. A common objective of the revenue and pricing principles and the national gas objective is efficiency in investment in, and operation and use of, natural gas services. The national gas objective requires that the efficient investment in, and operation and use of, natural gas services serves "the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas". The ERA concluded that the current framework does not prevent efficient investment that is in the long-term interest of customers.

[617] AGL Energy submission, 14 November 2018, p. 4.

1827. The ERA concluded that the issue was not whether the gas regulatory framework prevented innovation. Rather, innovation spending and innovation projects are relevant to the extent they promote efficiency in investment and operation of natural gas services as required by the national gas objective.

1828. The ERA concluded that the regulatory criteria for approving capital and operating expenditure set out in rules 79 and 91 of the NGR do not prevent innovation spending, contrary to ATCO's submission. The ERA has the power to evaluate and approve expenditure for innovation under rule 79 (for capital expenditure) or rule 91 (for operating expenditure), subject to case-by-case consideration and determination that the proposed expenditure satisfies the criteria specified under those rules. Again, the decisive factor according to rules 79, 91 and the national gas objective is whether (or not) the expenditure is efficient.

1829. Rule 84 of the NGR also provides an opportunity for service providers to have expenditure which does not qualify under rule 79 approved as part of an access arrangement as speculative capital expenditure:

> **84 Speculative capital expenditure account**
>
> (1) A full access arrangement may provide that the amount of non-conforming capital expenditure, to the extent that it is not to be recovered through a surcharge on users or a capital contribution, is to be added to a notional fund (the **speculative capital expenditure account**).
>
> (2) The balance of the speculative capital expenditure account must be adjusted annually by applying to the balance a rate that is the same as the allowed rate of return for the regulatory year in which the adjustment is made.
>
> (3) If at any time the type or volume of services changes so that capital expenditure that did not, when made, comply with the new capital expenditure criteria becomes compliant, the relevant portion of the speculative capital expenditure account (including the return referable to that portion of the account) is to be withdrawn from the account and rolled into the capital base as at the commencement of the next access arrangement period.

1830. The ERA considered that rule 84 provides an additional avenue for service providers to be compensated for expenditure which was speculative investment.

1831. The ERA's view was that the approval of all capital and operating expenditures as part of an access arrangement revision proposal should be subject to the approval criteria set out in rules 79, 91 and 84 of the NGR and subject to the general requirements set out under rule 100 of the NGR and section 28(1)(b)(iii)(A) of the NGL.

### *Interaction of the proposed incentive mechanism with the reference tariff variation mechanism*

1832. Rule 97 of the NGR is as follows.

> **97 Mechanics of reference tariff variation**
>
> (1) A *reference tariff variation mechanism* may provide for variation of a reference tariff:
>
> (a) in accordance with a schedule of fixed tariffs: or
>
> (b) in accordance with a formula set out in the access arrangement; or

(c) as a result of a cost pass through for a defined event (such as a cost pass through for a particular tax); or

(d) by the combined operation of 2 or more of the above.

(2) A formula for variation of a reference tariff may (for example) provide for:

(a) variable caps on the revenue to be derived from a particular combination of reference services; or

(b) tariff basket price control; or

(c) revenue yield control; or

(d) a combination of all or any of the above.

(3) In deciding whether a particular *reference tariff variation mechanism* is appropriate to a particular access arrangement, the AER must have regard to:

(a) the need for efficient tariff structures; and

(b) the possible effects of the *reference tariff variation mechanism* on administrative costs of the AER, the service providers, and users or potential users; and

(c) the regulatory arrangements (if any) applicable to the relevant reference services before the commencement of the proposed *reference tariff variation mechanism*; and

(d) the desirability of consistency between regulatory arrangements for similar services (both within and beyond the relevant jurisdiction; and

(e) any other relevant factor.

(4) A *reference tariff variation mechanism* must give the AER adequate oversight or powers of approval over variation of the reference tariff.

(5) Except as provided by a *reference tariff variation mechanism*, a reference tariff is not to vary during the course of an *access arrangement period*.

1833. The ERA concluded that the administrative costs of assessing and approving recovery of scheme expenditures through the reference tariff variation mechanism were not justified and therefore ATCO's proposed incentive scheme was not consistent with rule 97(3)(b) of the NGR. As stated in paragraph 1823, administration of the scheme would have required the ERA to expend resources, including recurrent costs to assess ATCO's proposals for eligible projects and costs to conduct ongoing reviews for scheme compliance and therefore the administration costs of the scheme would be a significant recurring expense relative to the amount of project funding available under the scheme.

## *Conclusion*

1834. The ERA considered ATCO's proposed network innovation scheme and concluded that:

- The proposed scheme was not consistent with the revenue and pricing principles.
- The proposed scheme would not contribute to the realisation of the national gas objective to a greater extent than other incentives available to service providers under the current regulatory framework.
- The administrative costs of assessing and approving recovery of scheme expenditures through the reference tariff variation mechanism were not justified.

1835. Given these conclusions, the ERA did not approve the proposed network innovation scheme and required ATCO to amend the proposed access arrangement by deleting the proposed scheme.

> **Draft Decision Required Amendment 16**
>
> ATCO must delete the proposed Network Innovation Scheme (Part 12, Incentive Mechanisms) and associated cost pass through item (Annexure B, clause 2.1(e)) from the proposed revised access arrangement.

## *ATCO's response to the draft decision*

1836. ATCO accepted the ERA's draft decision required amendment to delete the network innovation scheme from the access arrangement.

1837. While accepting the required amendment to delete the network innovation scheme from the access arrangement for AA5, ATCO's response to the draft decision also described that ATCO had previously provided a submission to the Australian Energy Market Commission supporting the introduction of a regulatory sandbox framework. The Australian Energy Market Commission defines a regulatory sandbox as follows[618]:

> Broadly, a formal regulatory sandbox is a framework within which participants can trial innovative business models, products and services in the market under relaxed regulatory requirements on a time-limited basis and with appropriate safeguards in place.[619]

1838. ATCO's response to the draft decision also described the Australian Energy Market Commission's interim advice to the Commonwealth of Australian Government's Energy Council's Senior Committee of Officials regarding regulatory sandbox arrangements.[620] ATCO stated that the Commission's interim advice was that further stakeholder consultation was warranted on whether regulatory sandbox arrangements should be extended to the regulatory framework for gas. ATCO's revised proposal stated that a regulatory sandbox framework should be developed within the national gas framework as a matter of priority in order to reduce the barriers to innovation that ATCO considered existed in the regulatory framework. ATCO's revised proposal reiterated the view expressed in its initial proposal that the existing gas regulatory framework did not provide adequate incentives for the business to invest in innovative technologies.[621]

## *Submissions to the ERA*

1839. Several submissions to the ERA addressed ATCO's initial proposal to introduce the network innovation scheme in AA5. Some of the views expressed in some of these submissions have been outlined in paragraphs 1820, 1822 and 1825. Additionally,

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618 ATCO, *Submission on Regulatory Sandbox Arrangements to Support Proof-of-Concept Trials- Consultation Paper,* 31 January 2019, available from https://www.aemc.gov.au/sites/default/files/2019-02/ATCO.PDF

619 Australian Energy Market Commission, *Interim Advice Regulatory Sandbox Arrangements to Support Proof of Concept Trials,* 7 March 2019, p. 3.

620 Australian Energy Market Commission, *Interim Advice Regulatory Sandbox Arrangements to Support Proof of Concept Trials,* 7 March 2019.

621 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, pp. 226-228.

the public submissions received in response to ATCO's initial proposal expressed the following:

- Professor Craig Buckley supported ATCO's proposal. Professor Buckley noted that options for the gas distribution businesses to innovate were limited without funding from the Australian Renewable Energy Agency and in the absence of a network innovation scheme. Professor Buckley considered that the introduction of the proposed scheme would overcome disincentives for innovation created by the current regulatory framework.[622]
- Kawasaki Heavy Industries submitted that the regulatory framework for gas distribution operated on the assumption that the market was in a steady state over time and that regulatory incentives were geared towards year-by-year improvements to operational efficiency, which was adverse for businesses wishing to address challenges facing the gas industry. Kawasaki considered that ATCO's proposal for the network innovation scheme made commercial sense as an additional incentive to balance ATCO's immediate obligation to deliver efficient service over the next five years and its responsibility to look ahead to the advances needed over the next 20 to 30 years.[623]
- Alinta supported ATCO's proposal for the ERA to administer the scheme and suggested that the ERA should carefully scrutinise the details and anticipated costs of each proposal and seek submissions from key stakeholders prior to approving any projects as eligible for scheme funding. Further, Alinta considered that the ERA's costs for administering the scheme should be recovered under the scheme and not from licensed entities via licence fees or charges.[624]
- Synergy did not support the introduction of the incentive mechanism. Synergy considered that new business development (or entrepreneurial schemes) activities for providing reference services should be distinguished from innovation activities. Synergy did not consider that ATCO's customers should fund entrepreneurial research and development projects such as those involving hydrogen, which Synergy said were only loosely linked to the provision of gas distribution reference services.[625]

1840. Apart from a submission from Energy Networks Australia, there were no other submissions in response to the ERA's draft decision or ATCO's revised proposal, which draft decision and revised proposal deleted the proposed network innovation scheme from the access arrangement.

1841. While noting that ATCO had accepted the ERA's draft decision required amendment to delete the network innovation scheme, Energy Networks Australia submitted that the network innovation scheme would have incentivised investment in innovative technologies and put ATCO in a position to improve its services and better respond to customer choice.[626] Energy Networks Australia considered that:[627]

[622] C. Buckley submission, 12 November 2018.

[623] Kawasaki Heavy Industries submission, 14 November 2018.

[624] Alinta Energy submission, 14 November 2018, p. 6.

[625] Synergy submission, 14 November 2018, p. 8.

[626] Energy Networks Australia submission to ATCO 2020 to 2024 Access Arrangement Draft Decision, 10 July 2019, p. 12.

[627] Energy Networks Australia submission to ATCO 2020 to 2024 Access Arrangement Draft Decision, 10 July 2019, pp. 12-13.

- Network businesses, including ATCO, should be provided incentives to be on the leading edge of network innovation, putting themselves in a position to cater to customers' needs.
- The rejection of several proposed innovation incentive schemes by regulatory agencies may harm the long-term interests of current and future Australian gas distribution consumers.
- Regulators should provide effective long-term signals and incentives that ensure continued investment in, and use of, distribution network assets for the long-term interests of consumers.

1842. Energy Networks Australia also considered that the demand management innovation allowance and demand management incentive scheme, administered by the AER, were incentive mechanisms suited for adoption by gas distribution businesses.[628] Energy Networks Australia also stated that it supported the inclusion of a regulatory sandbox framework under which gas distribution businesses could trial innovative technologies, business models, products or services under relaxed regulatory requirements. Energy Networks Australia considered that a regulatory sandbox framework would reduce regulatory uncertainty and make it more viable for gas distribution businesses to invest in innovative projects which had the possibility to create long-term benefits for customers.[629]

## *Final decision*

1843. The ERA maintains its view from the draft decision that the network innovation scheme proposed in ATCO's initial proposal:

- Is not consistent with the revenue and pricing principles in section 24 of the NGL.
- Will not contribute to the achievement of the national gas objective to a greater extent than other incentives available to service providers under the current regulatory framework.
- Will require the ERA to incur administrative costs for assessing and approving recovery of scheme expenditures through the reference tariff variation mechanism that are not justified.

1844. Based on these conclusions, and given that ATCO has accepted the ERA's draft decision required amendment 16 to delete the proposed network innovation scheme, the access arrangement for AA5 will not include an incentive mechanism.

1845. The ERA acknowledges the public submission by Energy Networks Australia, outlined at paragraphs 1841 to 1842, in response to the ERA's draft decision. The ERA maintains its view that under the current gas regulatory framework, for a proposed incentive mechanism to be included in an access arrangement the mechanism should be evaluated for the following:

- Whether the proposed incentive mechanism is an acceptable incentive mechanism under rule 98 of the NGR, including whether the proposed incentive mechanism is consistent with the revenue and pricing principles.

[628] Energy Networks Australia submission to ATCO 2020 to 2024 Access Arrangement Draft Decision, 10 July 2019, p. 13.

[629] Energy Networks Australia submission to ATCO 2020 to 2024 Access Arrangement Draft Decision, 10 July 2019, pp. 13-14.

- Whether the proposed incentive scheme would contribute to the achievement of the national gas objective, in line with the general requirements set out under rule 100 of the NGR and section 28 of the NGL that the ERA must exercise its regulatory functions in a manner that will, or is likely to, contribute to the achievement of the national gas objective.
- Incentives for innovation spending under the current regulatory framework and the adequacy of existing incentives.
- The service provider's rationale for any proposed mechanism (as set out in the service provider's proposed access arrangement information).
- Any other rules which may apply given the proposed conditions of the proposed incentive mechanism.

1846. The ERA does not consider that, as submitted by Energy Networks Australia and ATCO, a regulatory sandbox framework is necessary for gas distribution businesses in order to facilitate investment in innovative technologies. The ERA considers that there is no barrier to innovative spending under the current regulatory scheme. If a case can be made that demonstrates that investment in the development of technologies will deliver benefits to users of regulated services and is consistent with the national gas objective, there is an opportunity for the capital expenditure and operating expenditure for that development to be included as part of an access arrangement, subject to the approval criteria set out in rules 79 and 91 of the NGR. If proposed capital expenditure for development of technologies is non-conforming capital expenditure according to the capital expenditure criteria set out in rule 79 of the NGR at the time that expenditure is made, there is an opportunity for that capital expenditure to be included in a speculative capital expenditure account according to rule 84 of the NGR. The portion of the non-conforming capital expenditure for development of technologies included in the speculative capital expenditure account which later becomes conforming capital expenditure could then be rolled into a service provider's capital base and recovered through tariff revenue.

1847. The ERA considers that the approval of all capital and operating expenditures as part of an access arrangement revision proposal should be subject to the approval criteria set out in rules 79, 91 and 84 of the NGR and subject to the general requirements set out under rule 100 of the NGR and section 28(1)(b)(iii)(A) of the NGL.

1848. Under the current regulatory framework, rule 100 of the NGR and section 28 of the NGL set out a general requirement that the provisions of an access arrangement must be consistent with the national gas objective. Users of regulated infrastructure should not fund capital expenditures which cannot be shown to deliver benefits to consumers of natural gas with respect to the price, quality, safety, reliability and security of supply of natural gas. The national gas objective also entails an efficiency aspect as it requires that investment in natural gas services is efficient. The ERA considers that shifting the risks associated with technology development to users/consumers is likely to remove the incentive for such investment to be undertaken in an efficient manner.

1849. The ERA considers that the approval of all capital and operating expenditures as part of an access arrangement revision proposal should be subject to the approval criteria set out in rules 79, 91 and 84 of the NGR and subject to the general requirements set out under rule 100 of the NGR and section 28(1)(b)(iii)(A) of the NGL.

1850. Regarding ATCO's view expressed in its revised proposal that the existing gas regulatory framework does not provide adequate incentives for the business to invest in innovative technologies, the ERA maintains its view that it is evident from rules 79

and 91 of the NGR that the regulatory criteria for approving capital and operating expenditure do not preclude innovation spending. Rule 84 of the NGR provides an additional avenue for service providers to be compensated for expenditure which is in the nature of speculative investment. The ERA considers that the current gas regulatory framework does not prevent investment in innovative technologies that is in the long-term interest of customers.

# Fixed principles

1851. Rule 99 of the NGR allows for an access arrangement to include fixed principles.

> **99 Fixed principles**
>
> (1) A full access arrangement may include a principle declared in the access arrangement to be fixed for a stated period.
>
> (2) A principle may be fixed for a period extending over 2 or more access arrangement periods.
>
> (3) A fixed principle approved before the commencement of these rules, or approved by the [ERA] under these rules, is binding on the [ERA] and the service provider for the period for which the principle is fixed.
>
> (4) However:
>
> (a) the [ERA] may vary or revoke a fixed principle at any time with the service provider's consent; and
>
> (b) if a rule is inconsistent with a fixed principle, the rule operates to the exclusion of the fixed principle.

## *ATCO's initial proposal*

1852. Part 11 of the current (AA4) access arrangement lists the fixed principles that apply. ATCO proposed to extend two of the principles that would otherwise expire during the fifth access arrangement period (AA5) and to introduce a new principle to support the operation of the proposed development rebate scheme (see paragraph 2104):

- Fixed principle 11.1 in the current access arrangement is due to expire on 25 August 2025. ATCO did not make any changes to this fixed principle.
  - This is a fixed principle for the straight line method of depreciation (under Part 9 of the access arrangement), and for inclusion of "higher heating value (HHV) costs" that are conforming capital expenditure in the opening capital base at the revision commencement date and for inclusion of conforming operating expenditure in total revenue for the next access arrangement period.
- Fixed principle 11.2 in the current access arrangement is due to expire 1 January 2021. ATCO proposed extending this fixed principle to apply for the next access arrangement period.
  - This is a fixed principle allowing the inclusion of "physical gate point costs" that constitute conforming capital expenditure in the opening capital base, and conforming operating expenditure in total revenue for the next access arrangement period.
- Fixed principle 11.3 in the current access arrangement is due to expire 31 December 2024. ATCO extended this fixed principle to apply for the next access arrangement period.
  - This is a fixed principle allowing the inclusion of additional conforming expenditure associated with a cost pass through event that meets the requirements to do so and requiring the provision of an associated report to the ERA.
- ATCO proposed a new fixed principle 11.4 in the proposed access arrangement for AA5 to provide the ability to recover rebate amounts and

associated costs from the development rebate scheme through reference tariffs in future access arrangement periods. The proposed fixed principle is as follows:

> **11.4 The following principle applies for the period described**
>
> The inclusion of Development Rebate Scheme Costs related to Rebate Amounts under paragraph 7.5(e) in Total Revenue in respect of the AGA GDS for the period or periods ending when those Rebate Amounts are fully depreciated.

## *Draft decision*

1853. ATCO proposed to extend fixed principles 11.2 and 11.3 to apply for the next access arrangement period. If not extended, both fixed principles would expire during AA5. ATCO's proposed amendments are detailed below. The fixed principles themselves remained substantially unchanged from the existing principles.

> 11.2 The following principles were approved by the ERA as fixed principles for 10 Years commencing on 1 January 2011 and have been extended to apply as required to ensure the expenditure they refer to is included in the expenditure for the Next Access Arrangement Period:
>
> a) the inclusion of:
>
> i) Physical Gate Point Costs that constitute Conforming Capital Expenditure in the Opening Capital Base for the AGA GDS for the Next Access Arrangement Period; and
>
> ii) Physical Gate Point Costs that constitute Conforming Operating Expenditure in Total Revenue for the Next Access Arrangement Period in respect of the AGA GDS,
>
> in respect of which Reference Tariffs have been varied as a Cost Pass Through Event.
>
> 11.3 The following principle expires at the end of the ~~next access arrangement~~ Next Access Arrangement Period:
>
> a) the inclusion of:
>
> i) additional conforming expenditure associated with a Cost Pass-Through Event for the period 1 ~~November 2018~~September 2023 to 31 December ~~2019~~2024. The expenditure must meet the requirements of clause 2 of Annexure B of this ~~current access arrangement~~Current Access Arrangement;
>
> b) In compliance with clause 11.3(a)(i), AGA must provide a report to the ERA on the cost pass-through, and that report shall contain the following information:
>
> i) a statement of reasons for the variation of the Reference Tariff as a result of the Cost Pass Through Event;
>
> ii) supporting calculations demonstrating consistency with the requirements of clause 2 of Annexure B;
>
> iii) supporting information substantiating the amount and nature of the costs proposed to be passed through by the varied Reference Tariff; and
>
> iv) the date or dates on which it is proposed by ATCO Gas Australia that the varied Reference Tariff shall come into effect.

> The ERA will consider ATCO Gas Australia's application for Cost Pass-Through Events during this period in its review of the next ~~access arrangement~~Access Arrangement. The ERA may require ATCO Gas Australia to provide further substantiation of the amounts and the nature of the costs that ATCO Gas Australia proposes to be passed through by the varied Reference Tariffs and requiring ATCO Gas Australia to provide that further substantiation by a date specified in the ERA's request. The ERA will advise if it approves or does not approve the cost pass-throughs detailed in ATCO Gas Australia's report and provide reasons for its decision. ATCO Gas Australia may account for the timing difference between incurring Conforming Operating Expenditure and the start date for the ~~tariff~~Tariff variation, through a time value of money adjustment.

1854. To extend the fixed principles, ATCO amended the drafting to use the words "extended to apply as required" and the term "Next Access Arrangement Period", which is defined in the access arrangement to mean "the access arrangement period immediately after the current access arrangement period". There was no reference to any specific dates. Absent such dates, the ERA considered there may be uncertainty as to what period the fixed principles apply to.

1855. To remove any ambiguity over the period to which the fixed principles apply, the ERA considered that the access arrangement should be clear as to when the principles will expire. The ERA required ATCO to include specific dates in fixed principles 11.2 and 11.3.

> **Draft Decision Required Amendment 17**
>
> ATCO must amend fixed principles 11.2 and 11.3 to include specific dates to remove any ambiguity over the period to which the fixed principle applies.

1856. Consistent with the ERA's decision to require ATCO to remove the proposed development rebate scheme from its extension and expansion policy (see paragraph 2121), ATCO's proposed fixed principle 11.4, to recover rebate amounts and associated costs from the scheme in future access arrangement periods, was also required to be deleted.

> **Draft Decision Required Amendment 18**
>
> ATCO must delete fixed principle 11.4 from the proposed revised access arrangement.

## *ATCO's response to the draft decision*

1857. ATCO accepted the ERA's draft decision required amendment 17 with some further proposed amendments. It did not accept draft decision required amendment 18. ATCO stated:[630]

> **ATCO [Response to Required Amendment 17]: Accept with modification**
>
> - ATCO has modified fixed principle 11.2 to extend the application of it for a further 10 years (therefore expiring on 1 January 2031)
> - ATCO has modified fixed principle 11.3 to include the start date of next access arrangement period (the AA6 will commence 1 January 2025) but is unable to be specific on the exact expiry date as the ERA will determine the end date of the AA6 period following the receipt of ATCO's AA6 proposal in September 2023.
>
> **ATCO [Response to Required Amendment 18]: Do not accept and propose a revised position**

[630] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 256.

> ATCO does not accept the required amendment to delete fixed principle 11.5 from the access arrangement. This fixed principle is necessary for the operation of the development rebate scheme. We do not accept that the development rebate scheme is inconsistent with the NGR, and we have presented further information in support of the development rebate scheme in Section 22.6.2 [of the AAI].

1858. Further to addressing the required amendments, ATCO submitted that it decided to reintroduce fixed principle 11.3 from the current access arrangement to support the tariff variation mechanism.[631] Consequently, the numbering (format) of the fixed principles in ATCO's revised proposal changed (Table 191).

**Table 191: Revised numbering for fixed principles in the access arrangement**

| ATCO's initial proposal (August 2018) | ATCO's revised proposal (June 2019) | Explanation |
|---|---|---|
| 11.2 | 11.2 | No change to numbering |
| NA | 11.3 | Reintroduced fixed principle 11.3 from current access arrangement |
| 11.3 | 11.4 | Consequential numbering (format) change |
| 11.4 | 11.5 | Consequential numbering (format) change |

*Source: ATCO, 2020-24 Revised Plan (Access Arrangement Information), 12 June 2019, p.258 (Table 19.2)*

## *Fixed principle 11.2*

1859. ATCO accepted the required amendment to include specific dates in fixed principle 11.2 to remove any ambiguity over the period to which the fixed principle applies. ATCO revised the access arrangement as follows.[632]

> 11.2 The following principles were approved by the ERA as fixed principles for 10 Years commencing on 1 January 2011 and have been ~~extended to apply as required to ensure the expenditure they refer to is included in the expenditure for the Next Access Arrangement Period~~declared as fixed principles for a further period of 10 years commencing on 1 January 2021:
>
> (a) the inclusion of: …

1860. ATCO adopted the drafting used in fixed principle 11.1 and considered that the revised drafting provided clarity that the fixed principle will expire on 1 January 2031.[633]

631 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 256.

632 ATCO, *[Proposed Revised] Access Arrangement for the Mid-West and South-West Gas Distribution Systems*, 12 June 2019, clause 11.2.

633 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 258.

## *Fixed principle 11.3*

1861. ATCO reintroduced fixed principle 11.3 from the current access arrangement (with some amendments to time periods) to support the operation of the tariff variation mechanism. ATCO submitted:[634]

> The purpose of fixed principle 11.3 is to allow for the recovery of any cost-pass through events between 1 October 2018 and 31 December 2019 to commence through AA5 tariffs. It is necessary for this fixed principle to be carried over from the current access arrangement in order to support the amendments that we have made to clause 2.2 of Annexure B and to ensure that the reference tariff variation mechanism, detailed in Annexure B, can recover these past costs.
>
> The operation of fixed principle 11.3 and clause 2 of Annexure B has the following effect on any cost-pass through events that occur between 1 October 2018 and 31 December 2019:
>
> - **Non-recurrent conforming operating expenditure:** the cost incurred within the final 15 months of AA4 will be fully recovered within the AA5 period consistent with clause 2.1(b) and 2.2 of Annexure B.
> - **Recurrent conforming operating expenditure:**
>   - the cost incurred within the final 15 months of AA4 will be fully recovered within the AA5 period consistent with clause 2.1(b) and 2.2 of Annexure B; plus
>   - the recurrent cost incurred during AA5 will be recovered in AA5 consistent with clause 2.1(b) and 2.2 of Annexure B.
>
>   In subsequent access arrangement periods recurrent conforming operating expenditure, associated with the cost-pass through events between 1 October 2018 and 31 December 2019, may also form part of the total revenue as provided for in clause 2.3(b) of Annexure B.
> - **Conforming capital expenditure:** any capital cost incurred within the final 15 months of AA4 will commence being recovered in AA5 as the depreciation of and return on the direct conforming capital expenditure. These costs will continue to be recovered in AA6 and beyond (depending on the assets economic life) through the return on and return of building blocks as provided for in clause 2.3(a) of Annexure B.
>
> In summary, the amount of conforming capital expenditure, after adjustment for any depreciation allowed for in the tariff variation mechanism during AA5, will be added to the AA6 opening capital base and the amount of conforming operating expenditure may be added to the total revenue allowance in AA6 and subsequent access arrangements. The ongoing recovery of any cost-pass through events, occurring between 1 October 2018 and 31 December 2019, beyond the end of AA5, will occur in accordance with clause 2.3 of Annexure B. We have specified the date that the fixed principle will expire, 31 December 2024, being the end of AA5, consistent with the intent of the existing fixed principle 11.3 from the current access arrangement.

## *Fixed principle 11.4 (previously 11.3)*

1862. ATCO accepted the required amendment to include specific dates in fixed principle 11.4 (previously fixed principle 11.3 in ATCO's initial proposal) to remove any

[634] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, pp. 258-259.

ambiguity over the period to which the fixed principle applies.[635] ATCO revised the access arrangement as follows.[636]

~~11.3~~11.4 The following principle expires at the end of the Next Access Arrangement Period (between 1 January 2025 and the following revision commencement date determined under rule 50 of the NGR):

a) the inclusion of:

i) additional conforming expenditure associated with a Cost Pass-Through Event for the period 1 September 2023 to 31 December 2024. The expenditure must meet the requirements of clause 2 of Annexure B of this Current Access Arrangement;

b) In compliance with clause ~~11.3~~11.4(a)(i), AGA must provide a report to the ERA on the cost pass-through, and that report shall contain the following information:

i) a statement of reasons for the variation of the Reference Tariff as a result of the Cost Pass Through Event;

ii) supporting calculations demonstrating consistency with the requirements of clause 2 of Annexure B;

iii) supporting information substantiating the amount and nature of the costs proposed to be passed through by the varied Reference Tariff; and

iv) the date or dates on which it is proposed by ATCO Gas Australia that the varied Reference Tariff shall come into effect.

The ERA will ~~consider~~cater for ATCO Gas Australia's application for additional conforming expenditure associated with Cost Pass-Through Events ~~during this~~for the period ~~in its review of the next~~1 September 2023 to 31 December 2024 through the Reference Tariff Mechanism that is applicable in the Next Access Arrangement Period (between 1 January 2025 and the following revision commencement date determined under rule 50 of the NGR). The ERA may require ATCO Gas Australia to provide further substantiation of the amounts and the nature of the costs that ATCO Gas Australia proposes to be passed through by the varied Reference Tariffs and requiring ATCO Gas Australia to provide that further substantiation by a date specified in the ERA's request. The ERA will advise if it approves or does not approve the cost pass-throughs detailed in ATCO Gas Australia's report and provide reasons for its decision. ATCO Gas Australia may account for the timing difference between incurring Conforming Operating Expenditure and the start date for the Tariff variation, through a time value of money adjustment.

1863. ATCO submitted:[637]

The purpose of fixed principle 11.4 is to allow for the recovery of any cost-pass through events in the final 16 months of AA5 to be recovered in AA6 tariffs.

It is necessary to allow the fixed principle to expire at the end of the AA6 period to ensure that the recovery of these costs commences within the AA6 period. The

635 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 259.

636 ATCO, *[Proposed Revised] Access Arrangement for the Mid-West and South-West Gas Distribution Systems*, 12 June 2019, clause 11.4.

637 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p.259.

operation of fixed principle 11.4 and clause 2 of Annexure B has the following effect on any cost-pass through events that occur in the final 16 months of AA5:

- **Non-recurrent conforming operating expenditure:** the cost incurred within the final 16 months of AA5 will be fully recovered within the AA6 period.
- **Recurrent conforming operating expenditure:** the cost incurred within the final 16 months of AA5 will be fully recovered within the AA6 period plus the recurrent cost incurred during AA6 will be recovered in AA6 to the extent that the AA6 tariff variation mechanism allows. In subsequent access arrangement periods recurrent conforming operating expenditure may form part of the total revenue.
- **Conforming capital expenditure:** any capital cost incurred within the final 16 months of AA5 will commence to be recovered in AA6 as the depreciation of and return on the direct conforming capital expenditure. These costs are expected to continue to be recovered in AA7 and beyond (depending on the assets economic life) through the return on and return of building blocks.

ATCO is unable to be specific on the exact expiry date as the ERA will determine the end date of the AA6 period following the receipt of ATCO's AA6 proposal in September 2023. Instead, we have included reference to the commencement date of AA6, 1 January 2025 in the fixed principle to assist reduce uncertainty as to what period the fixed principles actually applies.

In addition, we have made a modification to the drafting of the fixed principle to enable the ERA to consider our application for the cost pass-through events through the reference tariff variation mechanism that is applicable in AA6. The current drafting allows for the ERA to consider our application during the AA6 review process, which presupposes that it will not be complete until after December 2024.

## *Fixed principle 11.5 (previously 11.4)*

1864. ATCO did not accept the required amendment to delete fixed principle 11.5 (previously fixed principle 11.4 in ATCO's initial proposal) from the access arrangement. ATCO submitted:[638]

> This fixed principle is necessary for the operation of the development rebate scheme. We do not accept that the development rebate scheme is inconsistent with the NGR, and we have presented further information in support of the development rebate scheme in Section 21.6.2 [of the AAI].
>
> Fixed principle 11.5 will continue to apply for the period described. This is to enable the recovery of the rebate amount through reference tariffs over time in subsequent access arrangements periods over the life of the network asset.
>
> Therefore, this fixed principle will need to apply over the period that it takes to fully depreciate the rebate amounts over the life of the associated assets, consistent with the economic lives detailed in Table 11.6 [of the AAI].

1865. ATCO made minor revisions to the fixed principle to support the revisions made to the proposed development rebate scheme (see paragraph 2123).[639]

> ~~11.4~~11.5 The following principle applies for the period described
>
> The inclusion of Development Rebate Scheme Costs related to Rebate Amounts approved by the Authority under paragraph 7.5(~~e~~f) in Total Revenue in respect of the AGA GDS for the period or periods ending when those Rebate Amounts are fully depreciated.

638 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 260.

639 ATCO, *[Proposed Revised] Access Arrangement for the Mid-West and South-West Gas Distribution Systems*, 12 June 2019, clause 11.5.

## Submissions to the ERA

1866. No submissions to the ERA addressed ATCO's initial proposal for fixed principles.

1867. There were no submissions in response to the draft decision or ATCO's revised proposal.

## Final decision

### Revisions to fixed principle 11.2

1868. ATCO accepted draft decision required amendment 17 to include a specific date to remove any ambiguity over the period to which the fixed principle applies. It amended fixed principle 11.2 to read:

> The following principles were approved by the ERA as fixed principles for 10 Years commencing on 1 January 2011 and have been declared as fixed principles for a further period of 10 years commencing on 1 January 2021:

1869. The revised wording clarifies that the fixed principle first applied for a period of 10 years commencing 1 January 2011 (thus expiring 1 January 2021) and has been declared as a fixed principle for a further 10 years commencing 1 January 2021 (thus expiring 1 January 2031).

### Reintroduction of fixed principle 11.3

1870. ATCO proposed to reintroduce fixed principle 11.3 from the current (AA4) access arrangement to support the operation of the tariff variation mechanism during the next (AA5) access arrangement. While ATCO made some drafting amendments to the fixed principle, it submitted that the intent of the fixed principle remained unchanged from the current access arrangement – that is, to allow for the recovery of any cost pass through events between a specified period to be recovered through reference tariffs.[640]

1871. The drafting amendments made to fixed principle 11.3 are as follows.[641]

> 11.3 The following principle expires ~~at the end of the next access arrangement~~on 31 December 2024:
>
> a) the inclusion of
>
> i) additional conforming expenditure associated with a Cost Pass-Through Event (within the meaning of clause 2.1(b) of Annexure B) for the period 1 ~~November 2018~~October 2018 to 31 December 2019. The expenditure must meet the requirements of clause 2.1(b) of Annexure B~~ of this Current Access Arrangement~~;
>
> b) In compliance with clause 11.3(a)(i), AGA must provide a report to the ERA on the cost pass-through, and that report shall contain the following information:

640 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 258.

641 The marked-up changes show the differences in wording between the current access arrangement for AA4 and ATCO's revised proposal for AA5 in response to the ERA's draft decision. See: ATCO, *[Proposed Revised] Access Arrangement for the Mid-West and South-West Gas Distribution Systems*, 12 June 2019, clause 11.3.

i) a statement of reasons for the variation of the Reference Tariff as a result of the Cost Pass Through Event;

ii) supporting calculations demonstrating consistency with the requirements of clause 2 of Annexure B;

iii) supporting information substantiating the amount and nature of the costs proposed to be passed through by the varied Reference Tariff; and

iv) the date or dates on which it is proposed by ATCO Gas Australia that the varied Reference Tariff shall come into effect.

The ERA will ~~consider~~cater for ATCO Gas Australia's application for additional conforming expenditure associated with Cost Pass-Through Events ~~during this~~for the period ~~in its review of the next access arrangement~~1 October 2018 to 31 December 2019 through the Reference Tariff Variation Mechanism for the Current Access Arrangement Period. The ERA may require ATCO Gas Australia to provide further substantiation of the amounts and the nature of the costs that ATCO Gas Australia proposes to be passed through by the varied Reference Tariffs and requiring ATCO Gas Australia to provide that further substantiation by a date specified in the ERA's request. The ERA will advise if it approves or does not approve the cost pass- throughs detailed in ATCO Gas Australia's report and provide reasons for its decision. ATCO Gas Australia may account for the timing difference between incurring Conforming Operating Expenditure and the start date for the tariff variation, through a time value of money adjustment.

1872. ATCO stated that "it [was] necessary for this fixed principle to be carried over from the current access arrangement in order to support the amendments that [ATCO] made to clause 2.2 of Annexure B and to ensure that the reference tariff variation mechanism, detailed in Annexure B, can recover these past costs".[642]

1873. Clause 2 of Annexure B of the access arrangement details provisions for the reference tariff variation mechanism for cost pass through events. Under clause 2.2, ATCO must notify the ERA of the cost pass through event(s). ATCO has revised the drafting of this clause to specify the period in which the cost pass through event must occur.[643]

2.2 Variation of Haulage Tariffs

If a Cost Pass Through Event occurs in the Current Access Arrangement Period, or occurred between 1 October 2018 to 31 December 2019, ATCO Gas Australia:

(a) must notify the ERA of the Cost Pass Through Event; and

(b) may recover …

1874. The ERA has considered the operation of ATCO's cost pass through mechanism against the specific requirements of the NGR elsewhere in this final decision (see paragraph 1766). For the purpose of assessing ATCO's proposal to reintroduce fixed

642 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 258.

Further to amendments made to clause 2.2 (Variation of Haulage Tariffs), ATCO has amended clause 2.1 (Cost Pass Through Events) and clause 2.3 (Next Access Arrangement Period) to refer to the time period "1 October 2018 to 31 December 2019".

643 ATCO, *[Proposed Revised] Access Arrangement for the Mid-West and South-West Gas Distribution Systems*, 12 June 2019, Annexure B, clause 2.2.

principle 11.3 into the access arrangement, consideration has been given to the ERA's most recent tariff variation assessment for the GDS.

1875. The ERA last considered and published ATCO's tariff variation for the GDS in November 2018.[644] The variation covered the tariffs that would apply in 2019 (i.e. from 1 January 2019 to 31 December 2019), which is the last year of the current access arrangement period (AA4). Tariffs for 2020, being the first year of the next access arrangement period (AA5), are determined as part of this review process for AA5.

1876. To determine the varied tariff components for 2019, ATCO identified and included the costs from cost pass through events up to the end of September 2018 and not already recovered in prior tariff variations. ATCO's revised proposal to reintroduce fixed principle 11.3 and amend the drafting to allow for the recovery of costs from cost pass through events for the period 1 October 2018 to 31 December 2019 covers the remaining period of AA4.

1877. Fixed principle 11.3 will expire on 31 December 2024, which is the end of the next access arrangement period (AA5) meaning that ATCO will be able to recover costs from cost pass through events that occur during AA5.

1878. The ability to recover costs from cost pass through events, as defined in clause 2 of the access arrangement, for the period 1 October 2018 to 31 December 2019 and AA5 is consistent with the revenue and pricing principles of providing ATCO with a reasonable opportunity to recover its efficient costs (NGL, section 24).

1879. However, the ERA does not accept ATCO's proposed amendment in the last paragraph of fixed principle 11.3 to replace the word "consider" with the words "cater for". The words "cater for" require the ERA to accommodate or accept ATCO's application for additional conforming expenditure from cost pass through events in the next access arrangement period. The word "consider" requires the ERA to determine whether to approve the application for additional conforming expenditure. As is noted in the last paragraph of fixed principle 11.3, "the ERA will *advise if it approves or does not approve* the cost pass throughs detailed in [ATCO's] report and provide reasons for its decision" (*emphasis* added). These words, read with the terms of fixed principle 11.3(a)(i) (which requires the expenditure to meet the requirements of clause 2.1(b) in Annexure B) and fixed principle 11.3(b) (which requires ATCO to provide a report to the ERA on the cost-pass through), require the ERA to *consider* whether or not to approve the cost pass through. For these reasons, the ERA rejects ATCO's proposed amendment to replace the word "consider" with the words "cater for".

**Required Amendment 15**

The words "cater for" in the last paragraph of fixed principle 11.3 in the proposed revised access arrangement must be deleted and the word "consider" reinstated.

[644] ATCO's 2019 tariff variation report is available on the ERA's website (accessed August 2018).

## *Revisions to fixed principle 11.4*

1880. ATCO accepted draft decision required amendment 17 to include a specific date to remove any ambiguity over the period to which the fixed principle applies. It amended fixed principle 11.4 (previously fixed principle 11.3 in ATCO's initial proposal) to read:[645]

> 11.4 The following principle expires at the end of the Next Access Arrangement Period (between 1 January 2025 and the following revision commencement date determined under rule 50 of the NGR): …

1881. The revised wording clarifies that the fixed principle will expire at the end of the next access arrangement period (being the sixth or AA6). ATCO submitted that "[it] is unable to be specific on the exact expiry date as the ERA will determine the end date of the AA6 period following receipt of ATCO's AA6 proposal in September 2023".[646] ATCO has instead made reference to the commencement date of AA6, being 1 January 2025, and the next revision commencement date (as determined under rule 50 of the NGR) to clarify the period to which the fixed principle applies.

1882. As indicated by ATCO, the ERA will determine the end date for AA6 when it considers ATCO's proposed access arrangement revisions for that period. Until such time, the start of the seventh access arrangement period (AA7), and consequently the end of AA6, is unknown. For this reason, the ERA considers ATCO's revised wording for fixed principle 11.4 is acceptable and satisfies draft decision required amendment 17.

1883. Further to the amendments made to address required amendment 17, ATCO made other drafting changes to allow the ERA to consider ATCO's application for cost pass through events through the reference tariff variation mechanism that is applicable in AA6. ATCO's other amendments to fixed principle 11.4 are detailed in paragraph 1862.

1884. ATCO submitted that "the purpose of fixed principle 11.4 is to allow for the recovery of any cost pass through events in the final 16 months of AA5 to be recovered in AA6 tariffs".[647] Like fixed principle 11.2, ATCO's amended drafting to fixed principle 11.4 allows for the recovery of costs associated with cost pass through events for the period 1 September 2023 to 31 December 2024 and AA6.

1885. The ability to recover costs associated with cost pass through events, as defined in clause 2 of the access arrangement, for the period 1 September 2023 to 31 December 2024 and AA6 is consistent with the revenue and pricing principles of providing ATCO a reasonable opportunity to recover its efficient costs (NGL, section 24).

1886. However, for the same reasons set out at paragraph 1879 (above) concerning the drafting in fixed principle 11.3, the ERA does not accept ATCO's proposed amendment in the last paragraph of fixed principle 11.4 to replace the word "consider" with the words "cater for".

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645 ATCO, *[Proposed Revised] Access Arrangement for the Mid-West and South-West Gas Distribution Systems*, 12 June 2019, clause 11.4.

646 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 259.

647 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 259.

**Required Amendment 16**

The words “cater for” in the last paragraph of fixed principle 11.4 in the proposed revised access arrangement must be deleted and the word “consider” reinstated.

### *Keeping fixed principle 11.5*

1887. The ERA has considered ATCO’s revised proposal for the development rebate scheme elsewhere in this final decision (see paragraph 2123). Consistent with the ERA’s final decision to require ATCO to delete the development rebate scheme from the extension and expansion requirements, ATCO’s proposed fixed principle 11.5, to recover rebate amounts and associated costs from the scheme in future access arrangement periods, must also be deleted.

**Required Amendment 17**

Consistent with the ERA’s final decision to require the deletion of the development rebate scheme from the extension and expansion requirements in the access arrangement, fixed principle 11.5 must also be deleted from the proposed revised access arrangement.

# Terms and conditions

1888. Rule 48(1)(d)(ii) of the NGR requires an access arrangement to detail, in addition to the reference tariff, the terms and conditions for each reference service.

1889. Rule 100 of the NGR states:

> The provisions of an access arrangement must be consistent with:
>
> (a) the national gas objective; and
>
> (b) these rules and the Procedures as in force when the terms and conditions of the access arrangement are determined or revised.

1890. Consistent with rule 100, the ERA must be satisfied that the terms and conditions, including any proposed amendments, are consistent with:

- The national gas objective, which 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".[648]
- The NGR and the procedures in force at the time of this access arrangement review.

## *ATCO's initial proposal*

1891. ATCO proposed to amend its template service agreement for AA5. The agreement specifies the terms and conditions for providing reference services. The purpose of having the agreement is so that it can be adopted by retailers seeking access to reference services. The agreement is included as Annexure F to the access arrangement.

1892. ATCO's proposed amendments were shown in a marked-up copy of the agreement and detailed in ATCO's access arrangement information. The reasons for the amendments fell into one (or more) of the following categories:

- Minor formatting and structural amendments: to correct and update the document for the fifth access arrangement period (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 negotiating 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 to a reference service for AA5.

[648] NGL, section 23.

## Draft decision

1893. The ERA considered ATCO's proposed amendments to the template service agreement and submissions received from interested parties. ATCO's proposed amendments comprised:

- Minor formatting and typographical corrections throughout the agreement.
- The deletion of all footnotes from the agreement.
- Amendments to the drafting of specific clauses of the agreement.
- Amendments to some defined terms used in the agreement.

1894. ATCO's proposed amendments that comprised minor formatting and typographical corrections, unless otherwise stated, were accepted as being consistent with rule 100 of the NGR. These amendments were administrative in nature and did not materially alter the agreement.

1895. ATCO's proposed deletion of all footnotes from the agreement, unless otherwise stated, was also accepted as being consistent with rule 100. The existing AA4 agreement contained 59 footnotes, which generally comprised references to and/or explanatory text for relevant legislation or other regulatory instruments (such as the NGL, NGR and Retail Market Procedures). Such footnotes were unnecessary and the deletion of them did not materially alter the agreement.

1896. The ERA considered ATCO's proposed amendments to the drafting of specific clauses and defined terms of the agreement in turn. The ERA also considered the submissions from interested parties that proposed further amendments to the agreement.

1897. The ERA required 17 amendments to the template service agreement.[649] The draft decision considerations are summarised as part of the final decision below (paragraph 1902 onwards).

## ATCO's response to the draft decision

1898. Table 192 summarises ATCO's response to the ERA's draft decision on the proposed amendments to the template service agreement and provides a reference to where the matter is considered in this final decision.

- ATCO accepted 11 of the ERA's draft decision required amendments to the template service agreement. A further four amendments were accepted, subject to further proposed amendments and/or clarification from ATCO.
- ATCO did not accept two of the ERA's required amendments to the template service agreement and provided reasoning for this. The ERA has considered ATCO's reasoning as part of its final decision below (paragraph 1902 onwards).

[649] ERA, *Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024*, required amendments 19 to 35.

**Table 192: ATCO's response to required amendments to the template service agreement**

| ERA draft decision | ATCO's response to required amendment | Agreement clause | Final decision paragraph reference |
|---|---|---|---|
| Required Amendment 19 | Accepted with no further comment | Clause 10.1 | Paragraph 1904 |
| Required Amendment 20 | Rejected | Clause 10.3 | Paragraph 1912 |
| Required Amendment 21 | Accepted subject to further proposal or clarification | Clause 15.2 | Paragraph 1925 |
| Required Amendment 22 | Accepted with no further comment | Clause 16.2(k) | Paragraph 1937 |
| Required Amendment 23 | Accepted with no further comment | Clause 16.3 | Paragraph 1941 |
| Required Amendment 24 | Accepted with no further comment | Clause 17.1(b) | Paragraph 1947 |
| Required Amendment 25 | Accepted subject to further proposal or clarification | Clause 23.1 (definitions) | Paragraph 1963 |
| Required Amendment 26 | Accepted with no further comment | Clause 23.1 (definitions) | Paragraph 1967 |
| Required Amendment 27 | Accepted subject to further proposal or clarification | Schedules | Paragraph 1969 |
| Required Amendment 28 | Accepted with no further comment | Clause 4.3 | Paragraph 1992 |
| Required Amendment 29 | Accepted with no further comment | Clause 4.4 | Paragraph 2002 |
| Required Amendment 30 | Accepted subject to further proposal or clarification | Clause 9.3 | Paragraph 2007 |
| Required Amendment 31 | Rejected | Clause 10.2 | Paragraph 2013 |
| Required Amendment 32 | Accepted with no further comment | Clause 14.5 | Paragraph 2024 |
| Required Amendment 33 | Accepted with no further comment | Clause 15.2(b) | Paragraph 2028 |
| Required Amendment 34 | Accepted with no further comment | Clause 15.5 | Paragraph 2033 |
| Required Amendment 35 | Accepted with no further comment | Clause 16.1 | Paragraph 2038 |

1899. Further to addressing the ERA's required amendments, ATCO proposed an additional two drafting corrections to the template service agreement.[650]

- In clause 4.3(a)(ii)A the word "Services" should be corrected to "Service".
- The word "reference tariff" should be corrected to "Reference Tariff" in:
  - Schedule 1 (Service A1), clause 9(f)
  - Schedule 2 (Service A2), clause 9(f)
  - Schedule 3 (Service B1), clause 8(f)
  - Schedule 4 (Service B2), clause 7(f)
  - Schedule 5 (Service B3), clause 7(f).

## Submissions to the ERA

1900. Submissions from AGL Energy and Alinta Energy addressed ATCO's initial proposed amendments to the terms and conditions in the template service agreement. The ERA addressed the matters raised in these submissions as part of its draft decision considerations.

1901. There were no other submissions in response to the draft decision or ATCO's revised proposal that addressed the template service agreement.

## Final decision

1902. The ERA has considered ATCO's response to the draft decision and revised amendments to the template service agreement in turn below. ATCO's additional proposed amendments (detailed in paragraph 1899) are administrative in nature and do not materially alter the ERA's draft decision required amendments or other provisions of the template service agreement.

### *Invoicing and payment (clause 10)*

1903. Clause 10 of the template service agreement details provisions for invoicing and payment. These provisions cover the structure of payment claims (for invoicing) and terms for payment, payment disputes and errors, and the calculation of interest on unpaid amounts. ATCO proposed amendments to the drafting of clauses 10.1 and 10.3.

#### *Clause 10.1 Invoicing*

1904. Clause 10.1 details the provisions for invoicing under the agreement. ATCO submitted its proposed amendments reflected the actual arrangements in place with retailers in Western Australia and the content of payment claims.

1905. ATCO's proposed amendments comprised two new subclauses that substantially reproduced current provisions with some changes to drafting to clarify what invoicing arrangements were in place.[651] The effect of the proposed changes:

[650] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 265.

[651] Clause 10.1(b) and clause 10.1(c)(i).

- Imposed an obligation on the service provider to provide notice of the payment method(s) by which payment may be made.
- Described a payment claim as comprising a data file that sets out the meter data used to calculate, or estimate, the charges in the claim in addition to a tax invoice and any other agreed information.

1906. The new drafting did not materially alter the provisions of the current clause and clarified operational aspects of the invoicing process. No public submissions raised any concerns with the changes. For these reasons the ERA determined that ATCO's proposed amendments were consistent with the requirements of the NGR and national gas objective.

1907. AGL noted that clause 10.1(a), which remained unchanged, allowed ATCO to make twice-monthly claims for payments. It submitted that: [652]

> Unless special circumstances prevail, the network [operator] should issue their invoice 10 business days after months end, as the retailer is required to pay 10 business days after the invoice is delivered (cl.10.2).
>
> A fixed payment cycle will allow all users to manage their cash flow position most efficiently and ensure that invoicing dates and payments dates can be scheduled well into the future.

1908. AGL stated that retailers were generally only able to bill customers monthly because they were required to comply with the *Compendium of Gas Customer Licence Obligations* as a condition of their retail licence.[653] Clause 4.1 of the Compendium requires retailers to bill customers, subject to several exceptions, no more than once a month and at least every 105 days. Therefore, the retailer-customer billing arrangements cannot be changed to meet changes to the frequency of the service provider's billing requirements.

1909. Apart from AGL, no other retailers raised concerns with clause 10.1(a) of the agreement or ATCO's billing frequencies. AGL itself did not explicitly submit that the billing frequency in clause 10.1(a) was causing, or had caused, problems for the billing of its end-user customers. Further, clause 10.1(a) of the agreement was discretionary – the clause did not require ATCO to claim payment twice a month and even if it did, neither AGL nor any other retailers put forward evidence as to ATCO's actual billing frequency for each customer and whether a customer had been billed twice within one month.

1910. Considering the evidence available at the time, the ERA decided that the provisions of clause 10.1(a) were not inconsistent with the NGR. However, the reference to clause "10.1(a)" was incorrect and the ERA required a correcting amendment.

> **Draft Decision Required Amendment 19**
>
> ATCO must amend clause 10.1(a) of the template service agreement to correct the reference to clause "10.1(a)". The reference should be a reference to clause "10.1(c)".

1911. ATCO accepted the ERA's draft decision required amendment 19 and corrected the reference in clause 10.1(a) of the template service agreement.[654]

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652 AGL Energy submission, 14 November 2018, pp. 8-9.

653 Information on the compendium is available online (accessed December 2018).

654 Following other revised amendments to the template service agreement (i.e. the introduction of new clause 10.1(c) in response to draft decision required amendment 31), clause 10.1(c) is now clause 10.1(d).

***Clause 10.3 Disputing payment claims prior to payment***

1912. Clause 10.3 details provisions for disputing payment claims (invoices) prior to payment. ATCO proposed to amend the timeframe the user had to provide a "payment dispute notice" to the service provider from 10 business days after receiving the payment claim to three business days.[655] ATCO submitted the amendments reflected actual arrangements with retailers in Western Australia.

1913. AGL submitted that the proposed three days to identify a payment issue and raise a dispute with ATCO was not reasonable for a retailer with a substantial number of customers.[656] AGL submitted that a fixed payment schedule, like that in clause 10.1 (see paragraph 1907), would allow a retailer reasonable time to identify payment issues and provide a payment dispute notice to ATCO.

1914. ATCO's proposal to shorten the timeframe to raise a payment dispute from 10 to three business days was significant (a difference of more than one standard working week). The ERA agreed that the shortened timeframe may be unreasonable for retailers with substantial customer numbers and noted the following:

- Under the existing AA4 provisions of the agreement, users have 10 business days after receiving a payment claim to raise a payment dispute notice with ATCO, which must be in writing and comprise the full details of the dispute and the amount the user considers should be payable (the alternative payment amount) instead of the amount set out in the claim. After receiving the dispute notice, ATCO has five business days to provide a written response notice to the user, stating whether it agrees or does not agree to the alternative payment amount.
- In circumstances where a user does not raise a payment dispute notice within the 10 business day timeframe, it must essentially pay the payment claim in accordance with the payment terms and raise any disputes about the payment in accordance with clause 10.4, which provides for the correction of payment errors after payment.
- The payment terms under the agreement (clause 10.2) are for payment claims to be paid within 10 business days after the claim is received. The timeframe to dispute a payment claim prior to payment should therefore be less than or equal to 10 business days. That is, the payment claim is either paid or disputed within the 10 business day payment period.

1915. ATCO submitted that its proposal to shorten the timeframe to raise a payment dispute reflected existing arrangements with retailers in Western Australia. However, this was unsubstantiated. Given the concerns raised by AGL, the ERA did not accept ATCO's proposed amendment as being consistent with the national gas objective without further evidence that all users (retailers) were able to operationally meet such timeframes. Unless all users were able to reasonably meet a three business day timeframe, a longer timeframe that corresponded with the payment terms of the agreement should remain. Alternatively, the ERA considered the agreement should provide that a payment dispute must be raised prior to the due date of the payment claim.

[655] The amendment is made to clause 10.3(a)(i) of the template service agreement.

[656] AGL Energy submission, 14 November 2018, p. 9.

**Draft Decision Required Amendment 20**

ATCO must amend clause 10.3(a) of the template service agreement to retain the 10-business day timeframe for a user to raise a payment dispute, or to provide that a payment dispute must be raised prior to the due date of the payment claim.

1916. ATCO did not accept the ERA's draft decision required amendment 20. ATCO maintained that its proposal to reduce the timeframe for raising a payment dispute from 10 to three business days reflected the current arrangements in place with retailers in Western Australia. ATCO submitted that the current arrangements were as follows.[657]

> 1. Invoices and requests for payment are raised twice per calendar month (i.e. approximately every 10 Business Days) by ATCO with each retailer;
>
> 2. Each retailer has 3 Business Days in which to check the request for payment and raise any dispute;
>
> 3. ATCO has 5 Business Days in which to investigate the dispute and respond accepting or rejecting the dispute; and
>
> 4. Payment is then due within a further 2 Business Days if no acknowledgement of ATCO's response under paragraph 3 above is received from the retailer.

1917. ATCO stated that the above arrangements were to ensure "that all disputes are dealt with within each payment cycle to avoid inefficiencies for retailers and ATCO by having disputed amounts carried into multiple payment periods". In circumstances where the time period to raise a dispute is 10 business days, the dispute process will run into the following payment period.[658]

1918. To substantiate its proposal for raising payment disputes within three business days and demonstrate that this is current practice, ATCO provided a copy of a procedures and practices guideline that is provided to retailers.[659] The ERA has confirmed with ATCO that this guideline was first established in July 2004 when full retail contestability commenced. The guideline forms part of ATCO's retailer entrant procedures and is provided to retailers during their "on-boarding" and prior to signing their haulage service agreement.[660] The information in the guideline is consistent with the arrangements outlined by ATCO in its revised access arrangement information (and reproduced at paragraph 1916).

1919. ATCO further submitted:[661]

> … [I]t is consistent with the National Gas Objective to have in place unified processes, including disputes and payment processes for all market participants to ensure [ATCO] can provide uniform and efficient services to those participants, rather than inefficient multiple tailored (and potentially preferential) processes.
>
> ATCO does not accept that it is the case that a shortened timeframe may be unreasonable for retailers with substantial numbers of customers. We repeat that the proposed reduction from 10 to 3 Business Days does reflect current actual arrangements with retailers in Western Australia and that the arrangements work efficiently and symmetrically for all market participants. [A 10 Business Day timeframe

657 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 265.

658 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 265.

659 *"A guide to the Procedures and Practices between ATCO Gas Australia and the User"*. Provided to the ERA on a confidential basis.

660 Email from ATCO *"Re: Information Requests – ERA16 to ERA19"*, 8 August 2019.

661 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 266.

> will create] additional administration for retailers and ATCO in having to manage disputes across multiple billing periods with no benefit for end use customers.
>
> The confirmation or substantiation of the current arrangements can be made by the ERA directly seeking responses from current Western Australian retailers.

1920. The ERA did not receive any submissions on the draft decision or ATCO's revised proposal addressing clause 10.3. Considering the additional information provided by ATCO, and in the absence of any submissions from users (retailers) to dispute this information, the ERA accepts ATCO's amendment to clause 10.3(a) to amend the timeframe for the user to provide a payment dispute notice from 10 business days to three business days as being consistent with the requirements of the NGR and national gas objective.

## *Default and termination (clause 15)*

1921. Clause 15 of the template service agreement details provisions for default and termination. These provisions include the circumstances where a party and user are in default under the agreement. ATCO proposed amendments to clauses 15.1 and 15.2 to change these circumstances.

### *Clause 15.1 Default by a party*

1922. Clause 15.1 specifies the circumstances where a party is in default under the agreement. ATCO proposed to amend subclause (c) to replace the term "Service Provider" with the words "the other party" to reflect the mutual obligations and rights of both parties.

1923. No submissions to the ERA addressed ATCO's proposed amendment to clause 15.1(c).

1924. The obligations and rights under this clause apply to all parties to the agreement and not just the service provider (as is currently drafted). For this reason, the ERA determined that ATCO's proposed amendment was consistent with the requirements of the NGR and national gas objective.

### *Clause 15.2 Default by User*

1925. Clause 15.2 specifies the circumstances where a user is in default under the agreement and are in addition to the circumstances specified in clause 15.1. ATCO proposed to amend subclause (a) to reflect the changes to termination rights in cases of insolvency following amendments introduced from 1 July 2018 pursuant to the *Treasury Laws Amendment (2017 Enterprise Incentives No.2) Act 2017 (Cth)*. ATCO submitted that the proposed amendments to clause 15.2(a) were to ensure the *ipso facto* clause remained enforceable.[662]

1926. The ERA considered that ATCO's proposed amendment to clause 15.2(a) of the agreement broadened the scope of the clause.

- Under ATCO's proposed clause, an actual or potential material adverse change which may adversely affect the user's business or financial condition, or which could materially affect the user's ability to meet its obligations to the service provider, will be a default.

[662] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 189. *Ipso Facto* means by that very fact or act.

- In comparison, the existing AA4 clause provides that if there is any adverse change in the user's business or financial condition, or an event occurs which could materially affect the user's ability to meet its obligations to ATCO, the user will be in default.

1927. ATCO did not explain why clause 15.2(a) had been broadened in this way. For this reason, the ERA did not accept ATCO's proposed amendment. The ERA noted the following:

- The Treasury Laws Amendment Act introduced a regime whereby the enforcement of certain contractual clauses (known as *ipso facto* clauses) was restricted in the context of specified insolvency procedures (the *ipso facto* regime).[663]
- Clauses 15.1(d) and 15.2(a) of the template service agreement were captured by the *ipso facto* regime established by the Treasury Laws Amendment Act. To support the national gas objective, the *ipso facto* provisions in these clauses should be amended to make them expressly subject to the *ipso facto* regime to give parties to the agreement express notice of the operation of the regime and its effect. A definition of "*ipso facto* regime" should also be included in the agreement.

1928. The ERA required the following amendment.

> **Draft Decision Required Amendment 21**
>
> ATCO must amend clause 15.2(a) of the template service agreement to retain the current (AA4) drafting.
>
> ATCO must also amend clauses 15.1(d) and 15.2(a) to make the clauses expressly subject to the ipso facto regime by adding the words (at the beginning of each clause) "subject to the Ipso Facto Regime,".
>
> ATCO must insert a definition of "Ipso Facto Regime" in clause 23.1 as follows:
>
> *Ipso Facto Regime means the amendments made to the Corporations Act 2001 (Cth) by Part 2 of the Treasury Laws Amendment (2017 Enterprise Incentives No. 2) Act 2017 (Cth).*

1929. ATCO accepted the ERA's draft decision required amendment 21, subject to further clarification and revised amendments.[664]

> [ATCO's] drafting of the proposed changes was not made to broaden the scope of the clause, only to reflect the way in which the ipso facto regime is to be triggered.
>
> Having considered the ERA's drafting changes, ATCO accepts that the drafting provides clarification of the legal position, save that clauses 15.1(d) and 15.2 should not be subject to the ipso facto regime. These events should still be defaults and the ipso facto regime should not prevent this. What the ipso facto regime prevents is terminating consequent upon the default, and instead, clause 15.4 should be subject to the ipso facto regime.

1930. ATCO's proposed revised amendments included changes to the drafting of cause 15.2 and a new clause 15.4(d) as follows.

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663 Commonwealth Parliament of Australia House of Representatives, *Treasury Laws Amendment (2017 Enterprise Incentives No.2) Bill 2017: Explanatory Memorandum*, p. 3 (online) (accessed February 2019).

664 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 266.

**15.2 Default by <User>**

In addition to the circumstances specified in clause 15.1, <User> is in default under this Service Agreement ~~in any one or more of the following circumstances:~~.

~~(a)~~ if ~~<Service Provider> determines, acting reasonably,~~ there is ~~an actual or potential material~~any adverse change ~~which may adversely impact~~in the business or financial condition of <User> or an event occurs which could, in <Service Provider>'s reasonable opinion, materially affect <User>'s ability to meet its obligations to <Service Provider> under this Service Agreement.~~; or~~

**15.4 Termination**

…

(d) Despite the preceding provisions of this clause 15.4, a party's right to terminate this Services Agreement due to the defaults referred to in clause 15.1(d) and clause 15.2 is subject to the operation of the Ipso Facto Regime.

1931. The ERA has considered ATCO's proposed revised amendments to clause 15.2 and new clause 15.4(d) of the template service agreement and the reasoning for the revised amendments in the context of the operation of the *ipso facto* regime. ATCO's proposed new clause addresses the ERA's reasoning for the draft decision required amendment – to give parties to the agreement express notice of the operation of the *ipso facto* regime and its effect. ATCO's revised amendments are also consistent with the operation of this regime, which is designed to limit the ability of a counterparty to an insolvent company to terminate a contract solely based on the company's entry into a specified restructuring or insolvency. The *ipso facto* regime seeks to increase the likelihood that a company will be able to continue to trade in order to recover from an insolvency event. For this reason, the ERA considers that ATCO's proposed revised amendments are consistent with the requirements of the NGR and national gas objective.

## *Security and insurance (clause 16)*

1932. Clause 16 of the template service agreement details provisions for security and insurance. These provisions set out the situations where a user is required to provide security and the amount of security required, as well as the insurances to be held and the required insurance information. ATCO proposed amendments to the drafting of clauses 16.2 and 16.3.

### *Clause 16.2 Security for performance*

1933. ATCO amended the drafting of clause 16.2 to clarify that the types and amounts of security for performance were not limited to a bank guarantee. The terms "bank guarantee" or "guarantee" were replaced with the terms "approved security" or "required security amount". The term approved security was defined at clause 23.1 (dictionary) of the proposed template service agreement as:

**Approved Security** means at User's election:

(a) a bank guarantee in the form set out in Annexure B (or such other form as is acceptable to <Service Provider>);

(b) funds deposited by way of a security bond;

(c) an insurance bond which is unconditional and payable on demand without reference to the User and notwithstanding any notice given by the User not to pay same, being otherwise in a form acceptable to <Service Provider>: or

(d) such other form of security as may be agreed between the parties from time to time.

1934. ATCO submitted that the amendments to clause 16.2 were in response to requests from prospective users for various forms of security to meet the requirements of the clause.

1935. No submissions to the ERA addressed ATCO's proposed amendments to clause 16.2.

1936. Subject to a required amendment to proposed clause 16.2(k), the ERA accepted ATCO's proposed amendments to clause 16.2 for the following reasons.

- Allowing various forms of security (other than a bank guarantee) was beneficial to users because it provided the user with options to meet the security requirements of the agreement and their operational circumstances.
- Providing options for security was consistent with the requirements of the NGR and national gas objective.

***Clause 16.2(k)***

1937. Proposed (new) clause 16.2(k) of the agreement reads:

> If the Approved Security is to be provided by way of a bank guarantee, the bank guarantee must be in or substantially in the form set out in Annexure B.

1938. The ERA considered that proposed clause 16.2(k) was inconsistent with part (a) of the new defined term "approved security".

- Part (a) of the defined term required the bank guarantee to be in the form set out in Annexure B or such other form as is acceptable to the service provider.
- Proposed clause 16.2(k) required the bank guarantee to be in the form set out in Annexure B or in substantially that form.

1939. The words "such other form as is acceptable to the service provider" was considered to be broader than the words "substantially in the form set out in Annexure B". The ERA required ATCO to amend clause 16.2(k) to make it consistent with part (a) of the defined term.

> **Draft Decision Required Amendment 22**
>
> ATCO must amend clause 16.2(k) of the template service agreement to read:
>
> *If the Approved Security is to be provided by way of bank guarantee, the bank guarantee must be in the form set out in Annexure B (or such other form as is acceptable to <Service Provider>).*

1940. ATCO accepted the ERA's draft decision required amendment 22 and has made the required amendment to clause 16.2(k) of the template service agreement. The amendment is consistent with the requirements of the NGR and national gas objective.

***Clause 16.3 Insurances***

1941. Clause 16.3 details the insurances that each party must hold under the agreement and the insurance information that is, or may be, required.

- Subclause (c) allows the service provider to request the user to provide evidence about matters relating to its insurance. Where requested, the user is required to provide this evidence within 14 business days.
- Subclause (d) requires the user to inform the service provider, within seven business days, of any notification from an insurer of its intention to cancel the user's insurances, or the user's intention to change its insurer.

1942. ATCO proposed to amend the time periods to standardise them within the agreement as follows.

- Clause 16.3(c) was amended from 14 to 15 business days.
- Clause 16.3(d) was amended from 7 to 10 business days.[665]

1943. No submissions to the ERA addressed ATCO's proposed amendments to clause 16.3.

1944. The ERA considered ATCO's proposed amendments to the time periods in clause 16.3 were minimal and corresponded to standard working weeks (that is, three and two weeks in clauses 16.3(c) and 16.3(d) respectively). The amendments were also beneficial to users because they provided additional days to comply and were consistent with the requirements of the NGR and national gas objective.

1945. Consistent with ATCO's reasons to standardise the time periods within the agreement, the ERA considered the time period stated in clause 19.3(d) should also be amended from 14 to 15 business days. ATCO confirmed that this change should have been made (and proposed) in its access arrangement proposal.[666]

**Draft Decision Required Amendment 23**

ATCO must amend the time period in clause 19.3(d) of the template service agreement from 14 to 15 business days.

1946. ATCO has amended clause 19.3(d) of the template service agreement to change the stated days from 14 to 15 business days as was originally intended. This amendment is consistent with the requirements of the NGR and national gas objective.

## *Liability of parties (clause 17)*

### *Clause 17.1(b)*

1947. Clause 17.1 of the template service agreement sets out provisions for liability, including liability for negligence and default limited to direct damage. ATCO proposed to insert a new subclause (b) to clarify that the enforcement of indemnification provisions was between the parties and their indemnified persons.

1948. Aside from Alinta's submission on clause 17 generally (see paragraph 1952), no other submissions addressed ATCO's proposal to insert clause 17.1(b).

1949. The ERA noted the following considerations.

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665 ATCO has described the proposed change to clause 16.3(d) in the access arrangement information (page 190) as "amending 14 to 15 Business Days". The ERA has confirmed with ATCO that this description is an error. The correct description should read "amending 7 to 10 Business Days". (Email from ATCO to ERA, *ERA 04*, 17 October 2018.)

666 Email from ATCO to ERA, *ERA 04*, 17 October 2018.

- Under section 11 of the *Property Law Act 1969 (WA)* third-party beneficiaries under a contract were entitled to enforce in their own name any benefit under a contract to which they were not a party.
- ATCO's proposed clause 17.1(b) was acceptable on the basis that it operated to the extent the indemnified person was unable to directly enforce the indemnity. That is, in circumstances where section 11 of the Property Law Act did not apply.

1950. However, for drafting clarity the ERA required further drafting amendments to clause 17.1(b) and a correction to clause 17.1(a).

> **Draft Decision Required Amendment 24**
>
> ATCO must amend clause 17.1(b) of the template service agreement to replace the words "persons for whom the indemnity is held on trust" (as they appear at the end of the clause) with the words "each Indemnified Person".
>
> ATCO must also amend clause 17.1(a) of the template service agreement to replace the reference to clause "17.1(b)" with a reference to clause "17.1(c)".

1951. ATCO accepted the ERA's draft decision required amendment 24 and has made the required amendments to clause 17.1(b) and clause 17.1(a) of the template service agreement. The amendments are consistent with the requirements of the NGR and national gas objective.

***Clause 17 generally***

1952. In its submission to the ERA on ATCO's initial proposal, Alinta submitted that clause 17 of the agreement was "too broad and does not allocate liability where the risk is best controlled".[667] Alinta submitted the agreement placed all liability on the user, whereas it was the service provider who was the party best able to control the risk.

1953. Alinta's comments on clause 17 of the template service agreement were general in nature and similar to comments it provided during the previous AA4 review. During that review, the ERA considered the case for allowing the agreement to impose liabilities on the user for indirect loss or damage under certain circumstances.[668] The ERA's final decision for AA4 required ATCO to remove references to indirect damage under certain clauses of the agreement. No specific amendments were required to clause 17, which left unchanged two important general principles:

- Parties will be liable to one another for direct damage arising from their own negligence or default (clause 17.1).
- Parties will not be liable to one another for any indirect damage, unless specifically provided for (for example, indirect damage in relation to a party who is fraudulent – clause 17.3).

1954. The ERA considered that, except for proposed (new) clause 17.1(b), clause 17 remained substantially unchanged from AA4 and preserved the two general principles, which applied equally to users and ATCO.

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667 Alinta Energy submission, 14 November 2018, p. 8.

668 ERA, *Final Decision on Proposed Revisions to the Access Arrangement for the Mid-West and South-West Gas Distribution Systems*, 30 June 2015 (as amended on 10 September 2015), pp. 563-566, paragraphs 2631 to 2654.

1955. The ERA noted that Alinta did not provide any examples of how, or any other reasoning for why, it considered the operation of clause 17 to be too broad. No other interested parties made submissions or raised concerns about clause 17. In these circumstances, the ERA was not convinced that clause 17 did not represent a fair allocation of risk under the agreement.

1956. The ERA did not receive any submissions on the draft decision addressing clause 17 of the template service agreement. Given this, the ERA maintains its draft decision position accepting that ATCO's proposed amended clause 17 is consistent with the requirements of the NGR and national gas objective.

### *Notices and addresses for notices (clause 20)*

1957. Clause 20 of the template service agreement details provisions for notices and other communications. ATCO proposed to amend subclause (c) to reflect the mutual obligations and rights of both parties (that is, the sender and recipient).

1958. No submissions to the ERA addressed ATCO's proposed amendments to clause 20.

1959. The provisions for notices and other communications detailed in clause 20 apply equally to all parties to the agreement. ATCO's proposal to replace references to the "user" and "service provider" with references to the "sender" and "recipient" reflected the mutual obligations and rights of these parties. For this reason, The ERA determined that ATCO's proposed changes were consistent with the requirements of the NGR and national gas objective. However, to improve readability, the ERA suggested the following minor grammatical corrections.

> Where notices or other communications from the sender are not provided in accordance with clause 20(a) or 20(b) (as applicable), the recipient may recover from the sender the reasonable additional costs involved in dealing with that notice or other communication.

1960. ATCO has amended clause 20(c) of the template service agreement to address the grammatical corrections suggested by the ERA.

### *Interpretation (clause 23)*

1961. Clause 23 of the template service agreement details provisions for the interpretation of the agreement, including a dictionary of defined terms (clause 23.1). ATCO proposed amendments to the dictionary to add new terms or update current terms (see Table 193). ATCO submitted that the proposed amendments were consequential amendments resulting from other proposed amendments to the agreement.

**Table 193: ATCO's proposed amendments to clause 23.1 (Dictionary) of the template service agreement**

| Term | Proposed amendment |
|---|---|
| Approved Security | means at User's election:<br>(a) a bank guarantee in the form set out in Annexure B (or such other form as is acceptable to <Service Provider>);<br>(b) funds deposited by way of a security bond;<br>(c) an insurance bond which is unconditional and payable on demand without reference to the User and notwithstanding any notice given by the User not to pay same, being otherwise in a form acceptable to <Service Provider>: or<br>(d) such other form of security as may be agreed between the parties from time to time. |
| Charge | has the meaning given to it in section 2 of the National Gas Access Law. |
| Indemnified Person | has the meaning set out in clause 17.1(b) of this Service Agreement. |
| Insolvency Event | means, in relation to a person or entity (Relevant Party), any of the following occurring:<br>(a) a receiver, receiver and manager, mortgagee in possession, administrator, bankruptcy trustee, liquidator, provisional liquidator, or similar officer is appointed to the Relevant Party or any of its assets, or an application is made to a court for an order to appoint such a person described in this paragraph and that application is not permanently stayed, withdrawn or dismissed within 30 days;<br>(b) a resolution is passed or an application to a court is taken or an order is made for the winding up, dissolution, official management or external administration of the Relevant Party;<br>(c) the Relevant Party ceases to (or is unable to) pay its creditors (or any class of them) in the ordinary course of business, or announces its intention not to pay its creditors;<br>(d) the Relevant Party is (or states that it is) insolvent or is deemed to be insolvent under applicable insolvency or bankruptcy Law;<br>(e) the Relevant Party commits an act of bankruptcy or is declared bankrupt under insolvency or bankruptcy Law;<br>(f) any process to enforce a security interest is taken against or in relation to a substantial portion of the assets of the Relevant Party and is not satisfied or withdrawn within 30 days;<br>(g) anything having a substantially similar effect to any of the events specified in paragraphs (a) to (f) of this definition happens under the law of any applicable jurisdiction; or<br>(h) where the Relevant Party is the <User>, at a particular time <Service Provider> determines, acting reasonably, that anything having a substantially similar effect to any of the events specified in paragraphs (a) to (f) of this definition may or is likely to occur within a reasonable period after that time. |
| Payment Method | means a method of payment of invoices notified by <Service Provider> under clause 10.1 of the Template Service Agreement. |
| Reference Service Terms and Conditions | has the meaning set out in clause 22.3 of this Service Agreement. |

| Term | Proposed amendment |
|---|---|
| Special Meter Reading | means the Reference Service described in paragraph 4.12 of the Access Arrangement. |
| Variation Period | refers to one of the following periods (as the case may be):<br>(a) the period 1 ~~October~~January 20201~~5~~ to 31 December 20201~~5~~;<br>(b) the period 1 January 20211~~6~~ to 31 December 20211~~6~~;<br>(c) the period 1 January 20221~~7~~ to 31 December 20221~~7~~;<br>(d) the period 1 January 20231~~8~~ to 31 December 20231~~8~~; and<br>(e) the period 1 January 20241~~9~~ to 31 December 20241~~9~~. |

*Source: ATCO, Template Service Agreement (tracked changes), 31 August 2018.*

1962. The ERA considered each of ATCO's proposed amendments to the dictionary of defined terms. Unless otherwise stated, the proposed amendments were accepted because they were consequential to other proposed amendments that were made to the agreement and determined by the ERA as being consistent with the requirements of the NGR and national gas objective.

### *Insolvency event*

1963. The ERA noted ATCO's proposed definition of "insolvency event". Although the term was capitalised in the current AA4 agreement, there was no definition of that term in the agreement. While a definition of insolvency event should be included, ATCO's proposed definition, specifically paragraphs (g) and (h), was not accepted as being consistent with the requirements of the NGR and national gas objective for the following reasons.

- The drafting was unclear. It was not understood what was meant by "anything having a substantially similar effect to any of the events specified in paragraphs (a) to (f)".
- An event of insolvency should be limited to events under insolvency or bankruptcy law. No explanation was provided as to why these additional broad definitions were required.
- The right provided by paragraph (h) was not reciprocal. The right was limited to the service provider and the service provider was given the power, acting reasonably, to determine that a substantially similar circumstance "may or is likely to occur within a reasonable period".

1964. The ERA required ATCO to delete paragraphs (g) and (h) from the definition.

> **Draft Decision Required Amendment 25**
>
> ATCO must amend the definition of "insolvency event" in clause 23.1 of the template service agreement to delete paragraphs (g) and (h) from the definition.

1965. ATCO accepted the ERA's draft decision required amendment 25, subject to clarifying the basis of its proposed amendment.[669]

> [ATCO's] drafting of the proposed changes was made to remedy the omission of "Insolvency Event" as a defined term, and to reflect the requirements of the *ipso facto* regime.

[669] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 267.

> Having considered the ERA's revised drafting together with the revised drafting proposed by the ERA in respect of [Draft Decision] Required Amendment 21, [Draft Decision] Required Amendment 25 is acceptable as clarification of the legal position.

1966. ATCO has deleted paragraphs (g) and (h) from the definition of "insolvency event" in clause 23.1 of the template service agreement. The ERA considers that the amendments are consistent with the requirements of the NGR and the national gas objective.

***Minor amendments to other terms***

1967. The ERA required minor amendments to the proposed definitions of "payment method" and "reference service terms and conditions". The required amendments were administrative in nature and were considered to more accurately reflect the drafting within the template service agreement.

> **Draft Decision Required Amendment 26**
>
> ATCO must amend clause 23.1 of the template service agreement to amend the definition of:
>
> - "payment method" to replace the words "the Template Service Agreement" with the words "this Service Agreement", and
> - "reference service terms and conditions" to replace the reference to clause "22.3" with a reference to clause "22.3(d)".

1968. ATCO accepted the ERA's draft decision required amendment 26 and has made the required amendments to the definitions of "payment method" and "reference service terms and conditions" in clause 23.1 of the template service agreement. The amendments are consistent with the requirements of the NGR and national gas objective.

## *Specific terms and conditions (schedules 3, 4, and 5)*

1969. Schedules 3, 4 and 5 of the template service agreement detail the special terms and conditions for the B1, B2 and B3 reference services respectively. ATCO proposed to insert a new clause into each of the schedules to add terms and conditions for a "special meter reading" reference service, consistent with its proposal to reclassify a special meter reading from a non-reference service in AA4 to a reference service in AA5.

1970. The proposed new clause reads the same in each of the schedules as follows.

> **[x][670] Special Meter Reading**
>
> (a) <User> may request <Service Provider>, in writing, to undertake an out-of-cycle meter reading of a meter that is:
>
> (i) not required to be undertaken at an appointed time;
>
> (ii) a manually read meter;
>
> at a Delivery Point under this Service Agreement by requesting <Service Provider> in writing to undertake a Special Meter Reading under the Retail Market Procedures.

[670] Clause 9 in Schedule 3 (Service B1), clause 12 in Schedule 4 (Service B2) and clause 12 in Schedule 5 (Service B3).

(b) <Service Provider> will use reasonable endeavours to undertake the Special Meter Reading within 2 Business Days of receiving <User>'s request.

(c) <User> acknowledges and agrees that <Service Provider> is not liable for a failure to comply with <User>'s request.

(d) If <Service Provider> undertakes the Special Meter Reading, then <User> must pay the relevant Reference Tariff specified in Annexure C of the Access Arrangement as varied by the Reference Tariff Variation Mechanism.

(e) If <Service Provider> attempts to undertake the Special Meter Reading, but is unable to do so because it cannot gain access to the relevant land or premises, then <User> must pay the relevant Reference Tariff specified in Annexure C of the Access Arrangement as varied by the Reference Tariff Variation Mechanism.

(f) If <User> cancels its request before <Service Provider> undertakes the Special Meter Reading, then <User> must pay the relevant Reference Tariff specified in Annexure C of the Access Arrangement as varied by the Reference Tariff Variation Mechanism.

(g) The activities of <Service Provider> described in this clause [x] of this Schedule [x] are a Service derived from the Reference Service described as Special Meter Reading in the Access Arrangement.

1971. The ERA considered ATCO's proposal to reclassify a special meter reading from a non-reference service as part of its considerations on pipeline and reference services (see paragraph 71). Consistent with the ERA's draft decision to approve the reclassification, ATCO's proposal to insert new provisions into Schedules 3, 4 and 5 of the template service agreement for a special meter reading reference service was consistent with the requirements of the NGR to include terms and conditions for each reference service. However, the ERA required some amendments.

1972. Alinta addressed ATCO's proposal to insert new terms and conditions into Schedules 3, 4 and 5 of the agreement for a special meter reading service. Alinta submitted:[671]

> Whilst the Service Provider is required to use reasonable endeavours to undertake a Special Meter Reading within 2 business days of receive a request from a User, it is not clear whether, if the Service Provider does not comply with the request, a Reference Tariff is payable. We consider that payment should not be made until the Special Meter Reading has been conducted, attempted to be conducted or cancelled by the user. That is, if the request is not complied with through the fault of the Service Provider, then payment should not be required by the User.

1973. The ERA noted Alinta's position. If the service provider does not undertake the special meter reading in accordance with the user's request, the user should not be required to pay the reference tariff as a result of an event or circumstance within the service provider's control. If, however, the service provider does not undertake the user's request because of an event or circumstance outside the service provider's control, the user should pay the reference tariff. The ERA considered these positions to be consistent with the requirements of the NGR and national gas objective.

1974. The ERA required ATCO to make the following amendments to the template service agreement.

[671] Alinta Energy submission, 14 November 2018, p. 8.

**Draft Decision Required Amendment 27**

ATCO must amend the template service agreement to delete proposed clause 9(c) of Schedule 3 and clause 12(c) in each of Schedules 4 and 5.

ATCO must also amend proposed clause 9 of Schedule 3 and proposed clause 12 in each of Schedules 4 and 5 to provide that the user is not required to pay the reference tariff if the service provider fails to undertake the meter reading as a result of an event or circumstance within its reasonable control, which the service provider could have prevented or overcome.

ATCO must further amend clause 9 in each of Schedules 1 and 2, clause 8 in Schedule 3 and clause 7 in each of Schedules 4 and 5 in the same manner as ATCO is required to amend the provisions relating to payments for special meter readings (refer to requirement immediately above).

1975. ATCO accepted part of the ERA's draft decision required amendment 27, subject to further clarification and revised amendments.[672]

- ATCO accepted the considerations of the ERA in response to Alinta's submission – a user should not be required to pay the reference tariff if the service provider fails to undertake the meter reading as a result of an event or circumstance within its reasonable control, which the service provider could have prevented or overcome.
- ATCO rejected the required deletion of clause 9(c) in Schedule 3 and clause 12(c) in each of Schedules 4 and 5 and proposed revised amendments to these clauses to address the ERA's required amendment.

1976. ATCO's proposed revised amendments to the template service agreement to address the ERA's draft decision required amendment include:

- amendments to clause 9(c) in Schedule 3 and clause 12(c) in each of Schedules 4 and 5; and
- a new clause 9(h) in Schedule 3 and a new clause 12(h) in each of Schedules 4 and 5, with minor consequential amendments to clause 9(e) in Schedule 3 and clause 12(e) in each of Schedules 4 and 5 as follows:

**[x][673] Special Metering Reading**

…

(c) <User> acknowledges and agrees that <Service Provider> is not liable for a failure to comply with <User>'s request where such failure by <Service Provider> is as a result of an event or circumstance outside its reasonable control, which <Service Provider> could not have prevented or overcome.

…

(e) Subject to clause [x](h), if ~~If~~ <Service Provider> attempts to undertake the Special Meter Reading, but is unable to do so because it cannot gain access to the relevant land or premises, then <User> must pay the relevant Reference Tariff specified in Annexure C of the Access Arrangement as varied by the Reference Tariff Variation Mechanism.

…

(h) <User> is not required to pay the Reference Tariff under clause [x](e) if <Service Provider> fails to gain access to the relevant land or premises as a

672 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 267.

673 Clause 9 in Schedule 3. Clause 12 in Schedules 4 and 5.

result of an event or circumstance within its reasonable control, which <Service Provider> could have prevented or overcome.

1977. Consistent with its approach to amend subclause (c) in each of Schedules 3, 4 and 5 (as outlined above), ATCO has amended clause 9 in each of Schedules 1 and 2, clause 8 in Schedule 3 and clause 7 in each of Schedules 4 and 5 as follows:

> **[x][674] Deregistering a Delivery Point**
>
> …
>
> (e) Subject to clause [x](f), if ~~If~~ <Service Provider> attempts to Deregister the Delivery Point, but is unable to do so because it cannot gain access to the Delivery Point, then <User> must pay the relevant Reference Tariff specified in Annexure C of the Access Arrangement as varied by the Reference Tariff Variation Mechanism.
>
> (f) <User> is not required to pay the Reference Tariff under clause [x](e) if <Service Provider> fails to gain access to Deregister the Delivery Point as a result of an event or circumstance within its reasonable control, which <Service Provider> could have prevented or overcome.

1978. ATCO provided the following reasons for the revised amendments set out above.[675]

> [T]he same wording in clause 9(c) of Schedule 3 and proposed clauses 12(c) in each of Schedules 4 and 5 has been approved by the ERA in clauses 9(c) (removing a meter lock), 10(c) (disconnecting a delivery point) and 11(c) (reconnecting a delivery point) of schedules 4 and 5 for AA4, amended from a previous version approved by the ERA and in place in AA3.
>
> It is unclear whether the ERA considers that there is any distinction between these groups of clauses. We propose that a more consistent approach would be to amend those clauses and to include consequential amendments to each of clauses 9(e) of Schedule 3 and proposed clauses 12(e) in each of Schedules 4 and 5 as shown in the amended Template Service Agreement provided with [ATCO's revised proposal].
>
> Consistent with the above approach, ATCO has also considered the requirement to amend the relevant clauses of the Template Service Agreement dealing with payment obligations for the deregistration of a delivery point service and [has proposed] amendments to clauses 9(e) and (f) of Schedules 1 and 2; clauses 8(e) and (f) of Schedule 3; and clauses 7(e) and (f) of Schedules 4 and 5 as shown in the amended Template Service Agreement provided with [ATCO's revised proposal].

1979. The ERA has considered ATCO's proposed revised amendments to the Schedules of the template service agreement and reasoning for the revised amendments. Although ATCO has not deleted clause 9(c) of Schedule 3 or clauses 12(c) in each of Schedules 4 and 5 (in respect of the special meter reading service), ATCO's proposed revised amendments adequately address the ERA's draft decision required amendment 27. That is, the following revised amendments address the ERA's draft decision position that a user should not be required to pay for a service where the service provider does not undertake the service in accordance with the user's request as a result of an event or circumstance within the service provider's control.

- The addition of the words "…where such failure by <Service Provider> is as a result of an event or circumstance outside its reasonable control, which

[674] Clause 9 in Schedules 1 and 2. Clause 8 in Schedule 3. Clause 7 in Schedules 4 and 5.

[675] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 268.

<Service Provider> could not have prevented or overcome" in clause 9(c) of Schedule 3 and clauses 12(c) of Schedules 4 and 5.

- The addition of the words "Subject to clause [x]…" in clauses 9(e) and 8(e) of Schedule 3 and in clauses 12(e) and 7(e) of each of Schedules 4 and 5.
- The addition of new clauses 9(h) and 8(f) in Schedule 3 and clauses 12(h) and 7(f) of each of Schedules 4 and 5,

1980. As indicated by ATCO, the other ancillary services in Schedules 4 and 5 of the template service agreement – *apply meter lock*, *remove meter lock*, *disconnect delivery point* and *reconnect delivery point* – also contain provisions dealing with payment obligations in similar terms to those in respect of the *special meter reading* and *deregistering a delivery point* services. For that reason and for the reasons specified in its draft decision considerations, the ERA also requires ATCO to amend the provisions of the template service agreement, detailed in Table 194, consistent with its revised amendments to the provisions for the special meter reading and deregistering a delivery point services (see paragraphs 1976 and 1977).

**Table 194 Required amendments to schedules 4 and 5 of the template service agreement**

| Service | Provision of agreement to be amended |
|---|---|
| Applying a meter lock to a delivery point | Clauses 8(c)(i) and 8(e) of Schedule 4<br>Clauses 8(c)(i) and 8(e) of Schedule 5 |
| Removing a meter lock from a delivery point | Clauses 9(c) and 9(e) of Schedule 4<br>Clauses 9(c) and 9(e) of Schedule 5 |
| Disconnecting a delivery point | Clauses 10(c) and 10(e) of Schedule 4<br>Clauses 10(c) and 10(e) of Schedule 5 |
| Reconnecting a delivery point | Clauses 11(c) and 11(e) of Schedule 4<br>Clauses 11(c) and 11(e) of Schedule 5 |

1981. In considering the further required amendments to clause 10(e) of Schedule 5 (disconnecting a delivery point service), the ERA notes that there is a formatting error in clause 10(e) – the clause is separated into two parts (subclauses (e) and (f)). In addition to the required amendments detailed at paragraph 1980, the template service agreement should be amended to correct this formatting error.

**Required Amendment 18**

Schedules 4 and 5 of the template service agreement must be amended to update the provisions for the services specified in Table 194 of this final decision to be consistent with the amendments that were made to the provisions for the special meter reading service and deregistering a delivery point service. That is, amendments to provide that the user is not required to pay the reference tariff if the service provider fails to undertake the service as a result of an event or circumstance within its reasonable control, which the service provider could have prevented or overcome.

## *Other proposed amendments*

1982. AGL's submission on ATCO's initial proposal addressed other terms and conditions of the template service agreement that remained unchanged from the current AA4 agreement. Table 195 summaries AGL's comments. The ERA considered each of AGL's comments in turn in its draft decision.

**Table 195: Summary of AGL's comments on clauses of the template service agreement that remain unchanged from AA4**

| Clause | AGL's comment(s) |
|---|---|
| 1 | Conditions precedent<br>AGL notes some discussion on changing the *WA Swing Service* to a *Short Term Trading Market* (STTM). AGL would like to ensure there is a mechanism to support the new role required by a market change. |
| 2 | Duration<br>AGL notes the dates and times specified in the clause, but suggests that while a user may no longer be shipping gas, the user will retain obligations to the retail market. The agreement should cover the period that the user has market obligations. |
| 4.3 | Obligations to pay<br>AGL has concerns with the operational implementation of this clause. The clause allows ATCO to charge a service fee on the basis of an act or omission by AGL and where the service is not able to be provided. |
| 4.4 | Charges payable until deregistration<br>AGL submits this clause provides for the retailer to pay charges for a delivery point until it is deregistered. There is no consideration of ATCO's efficiency (or lack of efficiency) in undertaking the works to deregister a delivery point. |
| 9.3 | Access to delivery point and relevant land and premises<br>AGL submits this clause places the onus of providing and ensuring access to ATCO's equipment (e.g. customer meters) on the retailer, who has no field staff, no responsibility for the connection or regular visits to the customer site. |
| 10.2 | Payment method<br>The agreement allows ATCO to specify the payment method in the payment claim. AGL believes that the payment method (as defined) should not be unduly onerous on the retailer or on ATCO. |
| 10.4 | Correction after payment<br>AGL notes this clause may require ATCO to pay a retailer if there is an agreed dispute, but there is no requirement to allow the retailer to specify the payment method (this comment is related to the comment on clause 10.2 about payment methods). |
| 14.5 | User remains liable<br>AGL submits the requirements for ATCO to consent to a transfer or novation should not be unreasonably withheld. |
| 15.2 | Default by user<br>AGL submits clause 15.2(b) appears to be overly onerous and imbalanced. A "default under any other agreement" could be very minor and would not justify terminating this agreement. |
| 15.5 | Additional remedies |

| Clause | AGL's comment(s) |
|---|---|
| | AGL submits this clause (like many of the others) does not contain the concept of reciprocity or reasonableness. |
| 16.1 | Compliance with obligations<br>AGL believes that ATCO should not be entitled to make requests for payments while the user meets the financial ratings specified. ATCO should also be required to provide reasonable cause to request evidence of compliance with the Approved System Pressure Protection Plan or Gas Quality Specification and Gas Standards. |
| 23.1 | Definitions<br>AGL submits the following definitions need amending: applying a meter lock; business day; gas day; and schedules. |

*Source: AGL Energy submission, 14 November 2018, pp. 7-10.*

### *Clause 1 – conditions precedent*

1983. Clause 1 of the template service agreement outlines the conditions precedent that must be satisfied or waived before the agreement has force or effect.

1984. AGL noted:[676]

> There has been some initial discussion on changing the WA Swing Service to a Short-Term Trading Market (STTM). Such a change would separate out the shippers of gas on the transmission pipelines to those on the distribution network. AGL would like to ensure that there is a mechanism to see a clause inserted into the template agreement to support the new roles required by a market change.

1985. AGL appeared to propose that a change in law clause (or similar) be included in the agreement to deal with any change of the swing service that operated in the Western Australian retail gas market[677] to a short-term trading market. The ERA did not consider a change of law mechanism of the type suggested by AGL in the agreement to be necessary for compliance with the NGR. Irrespective of this, the ERA did not consider any change in law clause or mechanism would need to form part of the conditions precedent because conditions precedent dealt with those matters which must be satisfied before the agreement came into force.

1986. The ERA did not receive any submissions on the draft decision addressing clause 1 of the template service agreement. Given this, the ERA maintains its draft decision position.

### *Clause 2 – duration of this service agreement*

1987. Clause 2 outlines the duration of the template service agreement by specifying when the agreement commences and ends.

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676 AGL Energy submission, 14 November 2018, p. 7.

677 Under Part 5.10 of the *Retail Market Procedures (WA)*, the Australian Energy Market Operator calculates the daily swing service quantities for the Western Australian gas retail market. The swing service is a contractual mechanism that retrospectively balances the mismatch between a user's contractual gas injections and customer withdrawals.

AEMO, *Technical Guide to the Western Australian Gas Retail Market*, 30 April 2018 (online) (accessed December 2018).

1988. While AGL noted the times and dates specified in the clause, it suggested that while a user may no longer be shipping gas, the user would retain obligations to the retail gas market for settlement revisions. The charging components of the agreement should cover these settlement revisions, and therefore the agreement should cover the period where the user has market obligations.[678]

1989. AGL submitted that the agreement should not end until the user has fulfilled its obligations in respect of settlement revisions. Settlement revisions (reconciliations) may occur under Part 5 of the Retail Market Procedures (WA). However, it is not clear that the expiry of the agreement would necessarily affect the user's obligations to the retail market for settlement revisions. Payment obligations under a contract that have accrued prior to termination will ordinarily survive termination.

1990. The ERA considered that additional information (from AGL or other interested parties) was required to assess whether an express provision was required in the agreement to deal with survival of payment obligations after termination. In the absence of such information, the ERA could not assess whether such an amendment was required.

1991. The ERA did not receive any submissions on the draft decision addressing clause 2 of the template service agreement. Given this, the ERA maintains its draft decision position.

***Clause 4.3 – ongoing obligation to pay***

1992. Clause 4.3 of the template service agreement requires the user to pay ATCO any applicable charges or other amounts payable under the agreement even if:

- ATCO is unable to provide, undertake or complete one or more services as a result of an act or omission by the user or where the service cannot be provided.
- The user uses a service intermittently or irregularly.
- ATCO refuses to accept gas delivered at a receipt point.
- ATCO curtails the quantity or pressure of gas deliveries to a user.
- The user is unable to use one or more services, for reasons that may be within or outside of its control.
- An event of force majeure occurs.

1993. AGL submitted that it had concerns with the operational implementation of this clause, namely subclause (a), which allowed ATCO to charge a service fee based on an act or omission by the user and where the service was not able to be provided. AGL stated that "it is unclear what defines an act or omission which would prevent ATCO from completing a service".[679]

1994. AGL provided two examples of service failures to highlight its concerns. In both cases, the network operator in question used a similar clause to ATCO as the basis for not undertaking the service, but still applying the service charge.[680]

[678] AGL Energy submission, 14 November 2018, p. 7.

[679] AGL Energy submission, 14 November 2018, p. 7.

[680] AGL Energy submission, 14 November 2018, p. 7.

1995. AGL stated that it would like to see "reciprocal clauses in the agreement, consistent with those of the National Energy Retail Rules (rule 105) [for] payment obligations when the retailer is no longer able to recover revenue due to a failure by the network".[681]

> **105 Liability for ongoing charges**
>
> (1) If a distributor is required to de-energise a customer's premises within the timeframes for de-energisation in accordance with a distributor service standard, and the distributor fails to do so, the distributor must (unless the failure is due to an act or omission of the customer or retailer):
>
> (a) waive any network charges applicable to the premises after the timeframes expire; and
>
> (b) pay charges for energy consumed at the premises after the timeframes expire, if the retailer has used all reasonable endeavours to recover the charges from the customer and has been unable to do so.
>
> (2) If the retailer subsequently recovers from the customer all or any part of any amount that the distributor has waived or paid, the retailer must pay that recovered amount to the distributor.

1996. The ERA agreed that, as stated by AGL, it was unclear what would comprise "an act or omission of" the user that would prevent ATCO from providing, undertaking or completing the service in clause 4.3(a)(i). Nevertheless, a user should only be required to pay for a service not provided, undertaken or completed by the service provider if:

- The user positively contributed to the service provider not providing, undertaking or completing the service(s).
- There was an event or circumstance which the user could have prevented or overcome, but did not do so and, as a result, the service provider could not provide, undertake or complete the service(s).

1997. AGL's proposal for reciprocal clauses in the agreement, consistent with those in rule 105 of the National Energy Retail Rules, was noted. If clause 4.3(a) of the agreement was amended to reflect the above circumstances, a reciprocal clause would not be necessary because the user would not be required to pay charges where the service was not provided, undertaken or completed for a reason outside the user's control.

1998. The ERA also considered that clause 4.3(a)(ii) of the agreement was unclear. This clause provided that the user was to pay charges even if ATCO was "unable to provide, undertake or complete one or more services as a result of that service not being able to be provided or undertaken in respect of the relevant delivery point". It was not clear whether this meant that ATCO could not physically undertake or perform the service at the relevant delivery point, or whether it meant something else (for example, that the service could not be provided or undertaken because of an act or omission by ATCO). For this reason, the ERA considered clause 4.3(a)(ii) should be redrafted to clarify this.

[681] AGL Energy submission, 14 November 2018, pp. 7-8.

**Draft Decision Required Amendment 28**

ATCO must amend clause 4.3 of the template service agreement to insert the words "Subject to clause 4.3A," (at the beginning of the clause).

ATCO must insert a new clause 4.3A as follows:

*For the avoidance of doubt, <User> is not required to pay any applicable Charges and other amounts payable under this Service Agreement in accordance with clause 4.1 if an event or circumstance within the control of <Service Provider> prevented <Service Provider> from providing, undertaking or completing the Service.*

ATCO must also redraft clause 4.3(a)(ii) of the agreement to make clear the intended effect of the clause.

1999. ATCO accepted the ERA's draft decision required amendment 28 and has made the required amendments to amend clause 4.3 and introduce a new clause 4.3A. Aside from a minor grammatical amendment to new clause 4.3A to amend the word "circumstances" to read "circumstance", the amendments address draft decision required amendment 28 and are consistent with the requirements of the NGR and the national gas objective.

2000. ATCO has redrafted clause 4.3(a)(ii) as follows to clarify the intended effect of the clause.

> Subject to clause 4.3A, <User> must pay <Service Provider> any applicable Charges and other amounts payable under this Service Agreement in accordance with clause 4.1 even if:
>
> (a) <Service Provider> is unable to provide, undertake or complete one or more Services as a result of:
>
> (i) an act or omission of <User> that prevented <Service Provider> from providing, undertaking or completing the Service; or
>
> (ii) that Service not being able to be provided or undertaken in respect of the relevant Delivery Point~~;~~ because:
>
> A. the Delivery Point is not physically able to be used to provide, undertake or complete the Service; or
>
> B. of an event or circumstance outside <Service Provider>'s reasonable control, which <Service Provider> could not have prevented or overcome;

2001. ATCO's proposed revised drafting for clause 4.3(a)(ii) has clarified the intended effect of the clause and is consistent with the requirements of the NGR and national gas objective.

**Required Amendment 19**

The word "circumstances" must be corrected to read "circumstance" in clause 4.3A of the template service agreement.

***Clause 4.4 – charges payable until deregistration***

2002. Clause 4.4 of the template service agreement requires the user to pay all charges and other amounts payable under the agreement for a delivery point until such time as the delivery point is deregistered.

2003. AGL submitted that the clause did not consider ATCO's efficiency (or inefficiency) in undertaking the works required to deregister a delivery point.[682] AGL considered there should be a reasonable agreed notice period, after which charges would cease, regardless of whether ATCO had completed the deregistration works or not. Such a notice period would incentivise ATCO to ensure deregistration works are undertaken efficiently and that the retailer (user) is not unduly affected.

2004. The ERA noted AGL's submission and for the reasons set out (below), did not consider that clause 4.4 of the agreement needed to be amended in the manner suggested by AGL.

- Deregistering a delivery point means "that gas is permanently precluded from being supplied at the delivery point because the delivery point is permanently deregistered in accordance with Part 3.6 of the Retail Market Procedures" (see definition of "deregistered" at clause 23.1 of the agreement). Part 3.6 of the Market Procedures deals with the removal of delivery points and the deregistering of meter installation registration numbers (MIRNs). In the procedures, "deregister", in relation to a MIRN, means that the delivery point has been permanently removed. "Permanent removal" means to permanently preclude gas being delivered at the delivery point.[683]
- The service of deregistering a delivery point under the access arrangement is to be undertaken in accordance with Part 3.6 of the Retail Market Procedures. Relevantly, clause 127(1) of the Market Procedures provides that, on receipt of a valid permanent removal request from a user, a network operator must permanently remove the delivery point on the later of the date requested by the user in its permanent removal request, or five business days after receiving the user's permanent removal request.
- A "permanent removal request" is a notice from a user to a network operator requesting the network operator to permanently remove a delivery point specified in the notice, and that notice must specify the earliest date that the delivery point can be permanently removed.[684]

2005. The ERA considered an amendment as suggested by AGL was not necessary when ATCO, as a network operator and scheme participant (as those terms are defined in the Market Procedures), must comply with the timelines set out in the Market Procedures when undertaking a delivery point deregistration. This was sufficient protection for users. However, to make the time periods in the agreement clear, the ERA considered that ATCO should amend clause 4.4(a) to refer to the timeframe specified in clause 127 of the Retail Market Procedures. There is then a contractual obligation, as well as a statutory obligation, on ATCO to undertake the delivery point deregistration within the specified period. Such obligations were consistent with the requirements of the NGR and national gas objective.

**Draft Decision Required Amendment 29**

ATCO must amend clause 4.4(a) of the template service agreement to read as follows to clarify the time period in which a delivery point deregistration must occur.

*<User> must pay all Charges and other amounts payable under this Service Agreement in respect of the Delivery Point, until such time as the Delivery Point is Deregistered,*

682 AGL Energy submission, 14 November 2018, p. 8.

683 AEMO, *Retail Market Procedures (WA)*, 1 June 2018 (version 4.0), clause 2.

684 AEMO, *Retail Market Procedures (WA)*, 1 June 2018 (version 4.0), clause 125(4).

*which time must not exceed the timeframe specified in clause 127 of the Retail Market Procedures;*

2006. ATCO accepted the ERA's draft decision required amendment 29 and has made the required amendment to clause 4.4(a) of the template service agreement. The amendment is consistent with the requirements of the NGR and national gas objective.

***Clause 9.3 – access to the delivery point and relevant land and premises***

2007. Clause 9.3 of the template service agreement covers provisions for access to delivery points and relevant land and premises. Subclauses (a), (b) and (c) provide that:

- The user acknowledges that ATCO's ability to provide reference services at a delivery point is subject to ATCO having unfettered access to the land and premises on, or through which, the delivery facilities are, or are to be, installed.
- The user must use reasonable endeavours to provide or procure such unfettered access to the relevant land or premises in a timely manner.
- Where ATCO does not have unfettered access to the relevant land or premises and consequently incurs costs to obtain access that it would not have otherwise incurred, ATCO may require the user to pay an amount to recover that cost.

2008. AGL said that both the user and service provider should have responsibilities to ensure access to relevant land and premises. AGL submitted the following in support of its position.[685]

> This clause places the onus of providing and ensuring access to ATCOs equipment (e.g. customer meters) on the retailer, who has no field staff, no responsibility for the connection or regular visits to the customer site.
>
> ATCO has prepared a safety case which details their processes and responsibilities. The ATCO gas safety case specifically lays out the assets which are ATCOs responsibility, including the service inlet, meter control valve, regulator and meter. These assets are included as part of ATCO's Asset Base and Asset Management Strategy.
>
> As such, AGL does not accept that ATCO can exclude itself from providing services if ATCO does not have 'unfettered access to the land and premises'. AGL strongly believes that as the asset owner, and the party with the safety responsibilities for these assets, that ATCO needs to take responsibility when access is denied by customers.
>
> Examples of this would be to ensure that requirements for gas meter connections include clear access or other methods of access – such as key safes or industry locks.
>
> AGL accepts that within the WA Market, ATCO has no direct relationship with the end customer; nevertheless, AGL does not believe that the network can absolve itself from its responsibility. AGL believes that this clause should be modified to include clearly defined responsibilities on both parties in these situations.

2009. Consistent with the requirements of the NGR and national gas objective, the ERA considered that users should not be unreasonably required to pay costs the service provider incurs in order to achieve unfettered access to the relevant land or premises. To reflect the separate relationships between the network operator and the user (retailer), and the user and end use customers, the service provider's discretion to require the user to pay an amount to cover its costs should be limited:

[685] AGL Energy submission, 14 November 2018, p. 8.

- by a requirement for the service provider to act reasonably
- to circumstances where the user has not used reasonable endeavours.

2010. Accordingly, the ERA required ATCO to amend clause 9.3(c) of the agreement as follows.

> **Draft Decision Required Amendment 30**
>
> ATCO must amend clause 9.3(c) of the template service agreement to limit the service provider's discretion to require the user to pay an amount to cover its costs:
>
> - by a requirement for it to act reasonably; and
> - to circumstances where the user has not used reasonable endeavours.
>
> [The required wording was set out in paragraph 1051 of the draft decision.]

2011. ATCO accepted the ERA's draft decision required amendment 30 and has made the required amendment to clause 9.3(c) of the template service agreement, reproducing the wording set out by the ERA in its draft decision. The amendment is consistent with the requirements of the NGR and national gas objective.

> (c) If <Service Provider>:
>
> (i) does not have unfettered access to the relevant land or premises as described in clause 9.3(a);
>
> (ii) considers acting reasonably, that <User> has not used reasonable endeavours in accordance with clause 9.3(b); and
>
> (iii) as a consequence incurs a cost in order to obtain access to the land or premises that it would not have incurred had unfettered access been provided,
>
> then <Service Provider> may, acting reasonably, require <User> to pay an amount determined by <Service Provider> as reasonable to recover that cost.

2012. In accepting the required amendment, ATCO provided the following comments in response to AGL's submission.[686]

> ATCO points out, and AGL acknowledges, that we do not have any contract with end use customers through which we can require access to undertake meter readings, disconnections, de-registrations and other activities relating to our meter assets on end use customers' premises. It is the retailer who has a contract with the end use customer and the terms of each standard form retail contract includes express and detailed provisions relating to access – for example, clause 4 of AGL's current standard form contract includes express contractual access obligations enforceable by AGL.
>
> The purpose of clause 9.3 of the Template Service Agreement is to set out the obligations of the User in respect of providing such access and the rights of the Service Provider.
>
> We are not seeking to "absolve ourselves from our responsibility" but to ensure that the User provides the necessary contractual link to enable us to have the access we require to provide the services under the Service Agreement.

### *Clause 10.2 – payment within 10 business days*

2013. Clause 10.2 of the template service agreement requires the user to pay a payment claim within 10 business days and using a payment method specified in the claim.

[686] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 269.

AGL said that the payment method (as defined) should not be unduly onerous on the user or on ATCO. AGL suggested that, while a retailer may be making the bulk of the payments to ATCO, under the agreement "the payment method to each party should be specified and agreed in advance and all payment clauses would use this [method] unless otherwise agreed".[687]

2014. ATCO proposed to amend the agreement to make drafting changes to clause 10.1, which addressed the type of "payment method or methods" available to the user (see paragraph 1904) and included a new definition of "payment method" (see paragraph 1961).

2015. "Payment method" is defined to mean "a method of payment of invoices notified by <service provider> under clause 10.1". Clause 10.1(b) states:

> <Service Provider> will provide notice of the Payment Method or Methods by which payment may be made, and any information required to make payment using the specified Payment Method or Methods.

2016. The ERA considered that, as suggested by AGL, the payment method to pay payment claims (invoices) should not be unduly onerous on the user or on ATCO. As currently drafted, the agreement allows only ATCO to specify the payment method(s) to be used. As such, the agreement should provide that the payment method(s) notified by ATCO (under clause 10.1(b)) must not be unduly onerous and where possible be agreed between ATCO and the user. Such a provision would be consistent with the requirements of the NGR and national gas objective.

> **Draft Decision Required Amendment 31**
>
> ATCO must amend clause 10.1(b) of the template service agreement to provide that the payment method or methods notified by the service provider must not be unduly onerous and where possible agreed with the user.

2017. ATCO did not accept the ERA's draft decision required amendment 31. Instead, ATCO proposed an alternative amendment to provide for payment methods to be either as prescribed by a regulatory instrument, or the payment method(s) in place between ATCO and other users. The proposed amendment adds new clause 10.1(c) to the template service agreement and leaves clause 10.1(b) unchanged.

> **10.1 Invoicing**
>
> …
>
> (b) <Service Provider> will provide notice of the Payment Method or Methods by which payment may be made, and any information required to make payment using the specified Payment Method or Methods.
>
> (c) The Payment Method or Methods shall be:
>
> (i) as prescribed by a Regulatory Instrument; or
>
> (ii) if not prescribed by a Regulatory Instrument, the Payment Method or Methods in place between <Service Provider> and other Users as at the date of this Service Agreement.

2018. In support of its proposed alternative amendment, ATCO submitted:[688]

[687] AGL Energy submission, 14 November 2018, p. 9.

[688] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, pp. 269 and 270.

> ATCO accepts the proposition that payment methods must not be unduly onerous and understands the concern that retailers may have in respect of potentially adverse payment methods being "imposed" by ATCO.
>
> In the Western Australian market over the last 5 years … there has been a significant expansion in the number of retailers operating in the market, including the entry of established retailers operating in east coast markets.
>
> ATCO's practice has been to request the adoption by new entrants of the payment methods in place at the time of their entry into the market. …
>
> The reasons for this approach are to minimise the number of different payment methods that we must manage in order to efficiently provide our metering services and to ensure that there is symmetry in the market so that no retailer is advantaged or disadvantaged through bespoke arrangements.
>
> …
>
> ATCO also considers that a clause in the Template Service Agreement that provides for agreement of subsequent items between the parties is at risk of being unenforceable as an "agreement to agree". As the ERA stated in its Amended Final Decision for AA4 (paragraph 2490):
>
> *"The template service agreement is effectively a regulated standing offer, which provides a basis on which users can negotiate a contract."*
>
> [ATCO] therefore proposes drafting amendments that provide for payment methods to be either as prescribed by a Regulatory Instrument, in this case most likely the Retail Market Procedures if a retailer or retailers sought a relevant procedure (rule) change, or if not prescribed by a Regulatory Instrument, the Payment Method or Methods in place between ATCO as Service Provider and other Users as at the date of the new entrant executing the Service Agreement. ATCO submits that these provisions provide sufficient certainty and symmetry between the parties and remove the uncertainty of a provision that is an "agreement to agree".

2019. ATCO's proposed alternative amendment has addressed the matter raised by AGL and the ERA's draft decision required amendment. Proposed clause 10.1(c) provides that the payment method(s) will be as prescribed by a regulatory instrument, or the payment method(s) in place between the service provider (ATCO) and other users at the time the agreement is signed.

2020. As indicated by ATCO, the Retail Market Procedures is the most likely applicable regulatory instrument, if market participants (retailers) seek changes to the procedures to clarify and/or confirm market related processes, such as in this case, payment and invoicing.

2021. ATCO claimed that the payment method(s) in place between ATCO and other users was documented in a guideline for retailers. This guideline is provided to retailers prior to signing their haulage service agreement. The ERA has considered ATCO's guideline as part of its considerations on proposed amendments to clause 10.3 (see paragraph 1918).

***Clause 10.4 – correction of payment errors after payment***

2022. Clause 10.4 of the template service agreement allows for the correction of payment errors after a payment claim has been paid.

2023. AGL noted that the clause may require ATCO to pay a user if there was an agreed dispute, yet there was no requirement for ATCO to allow the user to specify the payment method to be used. AGL cited its comments on clause 10.2 of the

agreement about payment methods as being relevant to this matter.[689] The ERA addressed AGL's comments as part of its consideration of the proposed amendments to clause 10.2 (see paragraph 2013).

***Clause 14.5 – user remains liable to service provider***

2024. Clause 14.5 of the template service agreement provides that the user remains liable to ATCO notwithstanding a proposed transfer (under clause 14.3) or novation (under clause 14.4) until:

- ATCO consents by written notice to the transfer or novation.
- The user and the relevant third party comply with the conditions imposed by ATCO for the transfer or novation.

2025. AGL submitted that the requirement for ATCO to consent to a transfer or novation should not be unreasonably withheld. AGL noted the reciprocal clause in the agreement (clause 14.8) which reads:[690]

> <Service Provider> may assign its rights or novate its obligations under this Service Agreement, with the <User>'s prior written consent, and such consent must not be unreasonably withheld.

2026. The ERA considered that, as submitted by AGL, ATCO's consent under clause 14.5(a)(i) should not be unreasonably withheld because this would be inconsistent with the requirements of the NGR and national gas objective. This corresponded with the user's obligations under clause 14.8, where the user's consent must not be unreasonably withheld when ATCO seeks to assign its rights or novate its obligations under the agreement.

> **Draft Decision Required Amendment 32**
>
> ATCO must amend clause 14.5(a)(i) of the template service agreement to include the words "and such consent must not be unreasonably withheld" at the end of the clause.

2027. ATCO accepted the ERA's draft decision required amendment 32 and has made the required amendment to clause 14.5(a)(i) of the template service agreement.[691] The amendment is consistent with the requirements of the NGR and the national gas objective.

***Clause 15.2(b) – default by user***

2028. Clause 15.2 of the template service agreement details the circumstances, that are in addition to the circumstances detailed in clause 15.1 (default by a party), when a user is in default under the agreement. AGL submitted that clause 15.2(b) appeared to be "overly onerous and imbalanced".[692] A "default under any other agreement" could be very minor and would not justify terminating the agreement. AGL would expect such a clause to be reciprocal and to have a measure of both parties acting reasonably.

2029. The ERA considered clause 15.2 should be reciprocal and require both parties to act reasonably – there is no reason for the provision to only apply to a default by the user,

689 AGL Energy submission, 14 November 2018, p. 9.

690 AGL Energy submission, 14 November 2018, p. 9.

691 Whilst ATCO has not used the drafting as detailed in the ERA's draft decision required amendment, the effect of ATCO's revised drafting is the same.

692 AGL Energy submission, 14 November 2018, p. 9.

which would be inconsistent with the requirements of the NGR and national gas objective. Accordingly, ATCO was required to amend clause 15.2(b) so that the parties would only be in default under the agreement if the defaulting party reasonably considered that the default under the other agreement would materially affect the non-defaulting party's ability to comply with its obligations under the service agreement.

2030. The ERA considered the required amendment to be consistent with the requirements of the NGR and national gas objective. If a user was in default under any other agreement it has with the service provider in respect of reference services, but the user's default under that other agreement did not, for example, affect the service provider's ability to comply with its obligations under the template service agreement, there may be inefficient outcomes that affect the long-term interests of consumers.

2031. As the effect of the ERA's decision on clause 15.2 was to make the clause reciprocal – that is, to apply to both parties – the ERA required the text of the amended clause 15.2(b) to be inserted as a new subclause (g) under existing clause 15.1 (which covers defaults by a party), making existing clause 15.1(g), clause 15.1(h).

> **Draft Decision Required Amendment 33**
>
> ATCO must delete clause 15.2(b) from the template service agreement and insert new clause 15.1(g) that reads:
>
> *if a party is in default ("defaulting party") under any other agreement with the other party under which the <Service Provider> provides Reference Services to <User>, and the non-defaulting party reasonably considers that the default under the other agreement will materially impact the non-defaulting party's ability to comply with its obligations under this Service Agreement; or*
>
> Current (AA4) clause 15.1(g) must be renumbered as new clause 15.1(h).[693]

2032. ATCO accepted the ERA's draft decision required amendment 33 and has made the required amendments to clause 15 of the template service agreement – clause 15.2(b) has been deleted and new clause 15.1(g) inserted. The amendments are consistent with the requirements of the NGR and the national gas objective.

***Clause 15.5 – additional remedies in the event of default***

2033. Clause 15.5 of the template service agreement outlines additional remedies ATCO may use in the event of a default by the user. If the user is in default under the agreement, ATCO may in its absolute discretion:

- Refuse to accept delivery of gas from a related shipper of the user at a receipt point (clause 15.5(a)).
- Wholly or partly curtail gas deliveries to the user at a delivery point (clause 15.5(b)).
- Reduce or suspend any service under the agreement to the user until all defaults are remedied (clause 15.5(c)).
- Exercise its rights, under clause 16.2(e), to call on any approved security to remedy the default and/or compensate it for any loss or damage (clause 15.5(d)).

[693] The ERA's draft decision incorrectly referred to clause 15.2(g) and 15.2(h). References to clause 15.2 should have been references to clause 15.1.

2034. AGL submitted that this clause, like many others, did not contain the concept of reciprocity or reasonableness. As an example, AGL submitted that:[694]

> [Clause] 15.5(c) deals with a retailer reducing or suspending services as a trigger for termination. It is more likely that ATCO would suspend or reduce services to the retailer. However, the clause does not contemplate a termination of service if ATCO 'suspends or reduces services'.

2035. It appeared that AGL misunderstood the operation of clause 15.5(c). AGL stated that clause 15.5(c) dealt with a retailer reducing or suspending services and that the clause did not contemplate a termination of service if ATCO suspended or reduced services. However, clause 15.5(c) contemplated the service provider, not the retailer, reducing or suspending services. For this reason, and given that no other interested parties made submissions on clause 15.5, the ERA did not consider it necessary to amend the clause to include a concept of reciprocity or reasonableness. In any case, clause 15.5 was discretionary.

2036. Subclauses (a) and (b) did not, however, have any temporal limitations – that is, even if the user remedied its default, the events in subclauses (a) and (b) could extend beyond that time. For this reason, the ERA considered that a time limit should be included in subclauses (a) and (b) that is based on remedy of the default, like subclause (c).

> **Draft Decision Required Amendment 34**
>
> ATCO must amend clauses 15.5(a) and 15.5(b) to include a time limit that is based on the remedy of the default by adding the words "until such time as all defaults have been remedied" at the end of each clause as follows.
>
> *(a) refuse to accept delivery of Gas from a Related Shipper of <User> at a Receipt Point until such time as all defaults have been remedied;*
>
> *(b) wholly or partly Curtail Gas deliveries to the <User> at a Delivery Point until such time as all defaults have been remedied;*

2037. ATCO accepted the ERA's draft decision required amendment 34 and has made the required amendments to clauses 15.5(a) and 15.5(b) of the template service agreement. The amendments are consistent with the requirements of the NGR and the national gas objective.

### *Clause 16.1 – compliance with obligations*

2038. Clause 16.1 of the template service agreement requires the user to comply with certain obligations. On written notice from the service provider, the user must:

- Pay all amounts owing under the agreement.
- Provide written evidence that the user can comply, is complying, and will comply with its approved system pressure protection plan, including by providing evidence of the identity of the user's related shippers.
- Provide written evidence that the user is complying with gas quality specifications and gas standards regulations for the gas it injects into the GDS.

2039. AGL submitted that ATCO should not be entitled to make requests for payment while the user meets the financial ratings described in clause 16.2 (security for performance) of the agreement. In the case of requiring written evidence, ATCO

[694] AGL Energy submission, 14 November 2018, p. 9.

should be required to provide reasonable cause to request evidence of compliance with the system pressure protection plan or gas quality specifications and gas standards regulations. AGL submitted that an equivalent claim could be a user requesting written evidence that ATCO was meeting its obligations under its safety management plan, without reasonable cause.[695]

2040. The ERA considered the following:

- Clause 16.2 of the agreement details the circumstances where ATCO can request the user to provide approved security. One such circumstance is where the user cannot demonstrate that it has an acceptable credit rating.[696]
- In the time after the agreement comes into effect and/or the time after the commencement of the reference services, the user's financial standing may change, such that the user might have difficulties, in the future, paying amounts due and owing to the service provider. Hence, ATCO should be able to recover, in accordance with prudent commercial principles, amounts owing under the agreement.
- Similarly, although the user is required, as a condition of the agreement coming into effect, to satisfy ATCO that it will comply with the approved system pressure protection plan, the user's actual compliance with the plan during the term of the agreement may change. The user's compliance with the approved system pressure protection plan, as well as compliance with the gas quality specifications and gas standards specifications, is necessary for the safe operation of the GDS. Clause 16.1 is therefore a necessary protection for the network operator. However, the discretion conferred on the service provider by clause 16.1 is not limited by any considerations of the service provider acting reasonably.

2041. Given the matters raised by AGL, the ERA considered that ATCO should not be permitted to require the user to comply with the obligation of clause 16.1 (outlined in paragraph 2038) unless ATCO acts as a reasonable and prudent network operator in requesting payment and/or requesting written evidence of compliance. The standard of acting as a "reasonable and prudent network operator" is consistent with the requirements of the NGR and national gas objective.

**Draft Decision Required Amendment 35**

ATCO must amend clause 16.1 of the template service agreement to insert the words "acting as a reasonable and prudent network operator" as follows.

*<Service Provider>, acting as a reasonable and prudent network operator, may by written notice, from time to time under this clause 16.1 require …*

2042. ATCO accepted the ERA's draft decision required amendment 35 and has made the required amendment to clause 16.1 of the template service agreement.

### *Clause 23.1 - dictionary*

2043. Clause 23.1 of the template service agreement contains the dictionary of defined terms that apply in the agreement. AGL commented on four defined terms: "applying a meter lock", "business day", "gas day" and "schedules".

695 AGL Energy submission, 14 November 2018, p. 10.

696 An acceptable credit rating is an unqualified Standard & Poor's credit rating of at least BBB-, or Moody's credit rating of at least Baa3, or Fitch credit rating of at least BBB-.

Applying a meter lock

2044. In the agreement, "applying a meter lock" means "the reference service described in paragraph 4.8 of the access arrangement". Paragraph 4.8 states:

> 4.8 Applying a Meter Lock
>
> a) Applying a Meter Lock is the Pipeline Service by which a lock is applied to the valve that comprises part of the Standard Delivery Facilities to prevent Gas from being received at the relevant Delivery Point.
>
> b) The Reference Tariffs associated with Applying a Meter Lock and the circumstance in which they apply are described in Annexure C.
>
> c) The process by which User obtains access to Applying a Meter Lock is set out in Schedules 4 and 5 of the Template Service Agreement (as relevant depending on the Haulage Service received).
>
> d) The other terms and conditions on which Applying a Meter Lock will be provided are set out in the Template Service Agreement.

2045. AGL noted that ATCO had been trialling other methods to disconnect supply, which could be considered under the umbrella of applying a meter lock. AGL submitted that the "gas service order transaction", which must be used under the agreement, has only a single service order type "apply meter lock". Being the only service order type, it is expected that "apply meter lock" may get used for purposes beyond this specified service. AGL suggested that the definition be broadened.[697]

2046. While AGL noted that ATCO had been trialling other methods to disconnect supply, AGL did not indicate what those methods were. ATCO did not provide any information in its proposal to the ERA on the trialling of other methods to disconnect supply and did not propose that these methods be offered as reference services. Given this, the ERA considered the current definition of "apply meter lock" was appropriate. In any case, if ATCO were to propose other methods of disconnecting supply and those methods were to be covered under the access arrangement, ATCO would need to submit the proposed services to the ERA for approval (in accordance with the NGR) as reference services.

2047. The ERA did not receive any submissions on the draft decision addressing the meaning of "applying meter lock". Given this, the ERA maintains its draft decision position.

Business day

2048. In the agreement "business day" means "a day that is not: (a) a Saturday or Sunday or (b) observed as a public holiday, a special holiday or bank holiday under the *Public and Bank Holidays Act 1972 (WA)*".

2049. AGL submitted that "due to the variability and application of business days, most markets and agreements are structured under national business days for notices and local business days (Western Australia) for the provision of services".[698] AGL noted that the Western Australian definition used within the agreement may lead to a misunderstanding between parties that are operating under national business days.

[697] AGL Energy submission, 14 November 2018, p. 10.

[698] AGL Energy submission, 14 November 2018, p. 10.

AGL suggested that the provision of notices and payments be undertaken in national business days, while the provision of services be undertaken in local business days.

2050. The ERA considered that the definition of business day should not be changed. The current definition of business day was correct because the agreement applied to services provided by the GDS, which operates only in Western Australia. Matters such as the interpretation of business days should therefore be defined by reference to the local legislation – namely, the *Public and Bank Holidays Act 1972 (WA)*. In any case, clause 22.1(a) of the agreement states that "this service agreement is governed by the laws of Western Australia". Reference to the local legislation was therefore consistent with clause 22.1(a).

2051. The ERA did not receive any submissions on the draft decision addressing the meaning of "business day". Given this, the ERA maintains its draft decision position.

Gas day

2052. In the agreement "gas day" means:

> a 24 hour period starting at 08:00 hours (Western Standard Time or, if applicable, Western Standard Daylight Savings Time) on a day and ending at 08:00 hours on the following day, so that:
>
> (a) a reference to a Gas Day is a reference to the Gas Day commencing at 08:00 hours on the day or date referred to, and ending at 08:00 hours on the following day; and
>
> (b) references to months, quarters and years are to be given corresponding meanings; and
>
> (c) in reckoning of months, quarters and Years, the 8 hour offset between months, quarters and Years reckoned under (b) above and calendar months, quarters and Years, is to be disregarded.

2053. AGL noted that there was a proposed change to the gas day in other jurisdictions and markets, which may at some stage be mirrored in Western Australia. AGL suggested that the term gas day in the agreement should contain some mechanism so the definition can be easily changed.[699]

2054. The ERA did not consider that a change to the term "gas day" was required and noted the following:

- Clause 23.3(b)(ii) of the agreement provides that "a reference to a clause of the Retail Market Procedures or a rule of the National Gas Rules or a provision of the Retail Market Scheme or the National Gas Access Law includes any amendment, substitution or replacement of the clause, rule or provision". As drafted, this would only accommodate a change to the definition of gas day if the definition includes a statement along the lines of "as defined in the Retail Market Procedures". On the current definition of gas day there is no reference to the Market Procedures. Accordingly, if the definition of gas day in the Market Procedures change, there is nothing in the current definition of gas day in the agreement to cover that change.
- Clause 13.3(a) of the agreement provides that in the event of any inconsistency between a party's obligations or rights under a law, and its obligations or rights under the agreement, its obligations and rights under the law shall take precedence to the extent of any inconsistency. However, clause 13.3(a) only

[699] AGL Energy submission, 14 November 2018, p. 10.

applies to rights and obligations under a law – the definition of gas day is not a right or obligation. Therefore, if the definition of gas day in the Retail Market Procedures were to change this would not be covered by clause 13.3(a).

- Nevertheless, clause 22.3(a) of the agreement allows the parties to amend the agreement in writing. Therefore, the parties can amend the definition of gas day to reflect any changes in the definition of that term in the Retail Market Procedures, when, and if, changes do occur. Until such changes occur, the existing definition of gas day is consistent with the requirements of the NGR and national gas objective.

2055. The ERA did not receive any submissions on the draft decision addressing the meaning of "gas day". The ERA therefore maintains its draft decision position.

Schedules

2056. The agreement includes schedules that contain specific terms and conditions for each reference service:

- Schedule 1 – Service A1
- Schedule 2 – Service A2
- Schedule 3 – Service B1
- Schedule 4 – Service B2
- Schedule 5 – Service B3

2057. AGL noted that each of the schedules had terms and conditions that required service orders to be paid, regardless of whether the service had been cancelled by the user.[700] AGL submitted that its comments on ATCO's proposed special metering reading reference service were relevant to this matter (see paragraph 88). While AGL considered that ATCO's proposed charge for the special meter reading service was consistent with other gas providers, AGL suggested that no charge should be payable in circumstances where the service is cancelled before it has been scheduled. AGL also noted that ATCO required the payment of service orders where it was unable to complete the order due to access issues. AGL said that access issues were a matter for both the retailer and network operator to rectify (see paragraph 2008).

2058. The ERA separately considered the matter of access to delivery points and relevant land and premises as part of its considerations on proposed amendments to clause 9.3 (see paragraph 2007). The ERA's consideration of AGL's comments about no charge being payable for the early cancellation of ancillary services is detailed below.

Cancellation of ancillary services

2059. AGL raised concerns about the payment for ancillary services not undertaken. AGL noted that tariffs for ancillary services included a direct operational cost, a direct administration cost and an allocation of corporate costs. When an ancillary service is not undertaken there are no direct costs or administration costs. In saying this, AGL recognised that there was a direct opportunity cost when staff could not be

[700] AGL Energy submission, 14 November 2018, p. 10.

rescheduled when services were cancelled. AGL said that there should be two components to the charges for relevant ancillary services.[701]

- Component 1 – no charge when the service work is cancelled before being scheduled (that is, there is no effect on resources).
- Component 2 – a cancellation charge that recognises resources were allocated and the service work cancelled, but that the resources were able to be reallocated to other work (a "wasted truck" charge).

2060. In support of its position, AGL submitted:[702]

> The Special Meter Read service is a good example as when one retailer may cancel a job, it is usual that another retailer may request a job. The proposition to charge the full fee for any cancellation (i.e. no resource impact) means that these costs inevitably flow back to the consumer.
>
> Inversely, if ATCO do not provide for a 'no fee'/'wasted truck charge', then there is no incentive on retailers cancelling unnecessary service orders which do not impact customer supply. With five retailers now operating in the market, the impact on ATCO of all retailers not cancelling services could be highly inefficient.
>
> ATCO has identified Special Reads as a key service regularly cancelled. If retailers are to pay the service fee regardless, then retailers will have no incentive to cancel the Service Order and ATCO will eventually be forced to increase its workforce to meet the increasing demand for a service that is not needed.
>
> This change structure proposed by AGL provides an incentive mechanism for retailers to cancel unnecessary jobs or be charged a 'wasted' fee charge for late cancellations, which recognises allocated resources.
>
> This should lead to a more efficient workforce utilisation for ATCO.

2061. ATCO addressed the matter of charges for ancillary services in its access arrangement information, which was raised by two retailers[703] responding to ATCO's invitation to comment on its draft proposal. ATCO indicated that the retailers had suggested that services cancelled more than two days before the scheduled service date should have no charge or a reduced charge.[704]

2062. ATCO submitted that, for AA4, it charged for cancelled services at the same rate as completed services for simplicity because the number of cancelled services was not significant. However, increased competition in the retail gas market (over the course of AA4) resulted in more completed and cancelled ancillary services. In 2017, approximately 75 per cent of revenue from cancelled services were from special meter readings and approximately 50 per cent of these cancelled readings were cancelled more than two days before the scheduled read date.[705]

2063. ATCO further indicated that it was investigating the effectiveness of changes to its billing system to monitor the timing of cancelled service orders for the following

[701] AGL Energy submission, 14 November 2018, pp. 4-5.

[702] AGL Energy submission, 14 November 2018, p. 5.

[703] The identity of the retailers has not been publicly disclosed by ATCO.

[704] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 180.

[705] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, pp. 180-181.

ancillary services: applying a meter lock, removing a meter lock and special meter reading.[706]

> We are currently investigating the effectiveness of implementing changes to our billing system to allow us to monitor the timing of cancelled service orders. This billing system change will allow service orders that incur no cost, to not incur a charge. Subject to the cost and practicality of billing system changes, charges for 'apply meter lock', 'remove meter lock' and 'special meter reading' may be reduced or have no charge if cancelled three days or more before the scheduled date of service. Services cancelled after that time will already have been sent to the contractor for action…
>
> The estimated cost of system changes is $50,000. This additional IT capital cost to implement the charging of a reduced fee for cancelled ancillary services is not currently in the IT capex forecast and would have to be included in the forecast capex program for AA5 if this functionality is required.

2064. ATCO stated that the other ancillary services (that is, deregistration, disconnect and reconnect services) all had scheduling procedures that made it difficult to set a single cut-off date for reduced charges.[707]

> These services also incur costs from the time the request is received as the service order is passed to operation departments for scheduling and action. The preferred course of action is to work with retailers to reduce the number of cancelled service orders.

2065. In any case, ATCO indicated that it "welcome[s] the opportunity to work with retailers to understand the cause of cancelled ancillary services and reduce them to the benefit of all market participants including customers". ATCO suggested that retailers may wish to consider changes to their booking processes to minimise bookings made more than three days from the preferred date of service in order to reduce the chances of cancellations.[708]

2066. The ERA considered there was merit in AGL's submission and ATCO's investigations to address the matter of charging for cancelled ancillary services. The charging of cancellation charges or fees for cancelled services is not uncommon. Under Australian Consumer Law businesses can charge such fees in certain circumstances. Such fees must be fair and reasonable and generally seek to recover reasonable costs to the business for having a service scheduled and then cancelled. Depending on the cancellation policy of an individual business, consumers may or may not be charged a cancellation fee when a service is cancelled. Such a charging regime provided incentives to consumers to use services that are scheduled, or to cancel services as soon as possible where the scheduled service cannot go ahead, allowing for the reallocation of resources.

2067. The cost for IT system changes to implement the charging of cancelled ancillary services (at a reduced or nil charge) was not included in ATCO's capital expenditure forecasts for AA5. Hence, any requirement for ATCO to implement a reduced charging regime for cancelled services would require adjustments to ATCO's capital expenditure forecasts. Based on preliminary investigations, ATCO estimated the cost of system changes to be $50,000 and suggested this cost outweighed the possible savings to retailers.[709]

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706 ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 181.

707 ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 181.

708 ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 181, Figure 19.10.

709 ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 168, Table 19.1.

2068. No retailers provided any information on the possible savings they (and their customers) may experience if ATCO made changes to its charges for cancelled ancillary services.

2069. The ERA sought additional information from ATCO on the number of cancelled ancillary services and the possible costs and benefits of additional capital expenditure to address retailers' concerns about cancellation charges for such services. ATCO submitted the following information.[710]

- ATCO noted the comments from retailers on its proposal submitted to the ERA on 31 August 2018 (and in response to the ERA's request for submissions and issues paper).
- Concerning interactions with retailers about cancellation charges:
  - ATCO discussed the matter of cancellation charges with retailers during quarterly meetings.
  - ATCO advised retailers that cancellation charges could be avoided by scheduling jobs two days before the required service date. ATCO submitted that not all retailers had put this into practice.
  - In addition to quarterly meetings, ATCO had ongoing, daily operational discussions with retailers about the gas retail market rules, which included navigating the differences in the procedures applying in Western Australia to practices adopted in other states.
- Based on 2,500 special meter reads per year cancelled fewer than or equal to three business days before the scheduled meter read date, and a charge of $12.82, ATCO estimated the savings to retailers to be approximately $32,000 per year (offset by the return of and on any required capital investment in IT).
- For a special meter read cancelled more than three days prior to the scheduled meter read date the reduced charge would be nil. That is, there would be no charge payable.
- For a special meter read cancelled three days or less from the scheduled meter read the standard special meter read tariff would apply.[711] ATCO stated: "costs would be incurred by the contractor and ATCO in attempting to cancel the special meter reading service as manual intervention may be required to stop the service. The contractor will also be arranging the appropriate resources depending on the level of planned activity. In some cases, it may not be possible to cancel the service by the contractor."
- Similarly, for services to apply and remove meter locks, there would be no charge for services cancelled more than three days prior to the scheduled service date. For services cancelled three days or fewer from the scheduled service date the standard apply meter lock or remove meter lock tariff would apply.[712]

2070. ATCO provided data on the number of cancelled services for 2017 and 2018. The number of cancelled services increased from 6,246 (in 2017) to 9,408 (in 2018).

[710] ATCO response to Information Request ERA 11, 7 March 2019 and 8 March 2019.

[711] The proposed special meter read tariff for AA5 is $12.82.

[712] The proposed apply meter lock tariff for AA5 is $49.14. The proposed remove meter lock tariff for AA5 is $26.73.

Approximately 94 per cent of cancellations in 2018 were attributed to cancelled special meter reads.

2071. The ERA calculated average savings to retailers of approximately $60,000 per year based on ATCO's proposed special meter read tariff and an estimate of 4,686 special meter reads, cancelled more than three business days before the scheduled meter read date (Table 196).[713] As indicated by ATCO, an amended billing system for reduced (nil) cancellation charges would apply to the apply meter lock and remove meter lock services, as well as the special meter read service. Hence, the savings would be greater than the estimate.

**Table 196: ERA's estimated savings from reduced (nil) cancellation charges**

| Special meter read service | 2017 | 2018 | Average |
|---|---|---|---|
| Cancelled more than 3 business days before read date | 3,209 | 6,163 | 4,686 |
| Proposed AA5 special meter read tariff | $12.82 | $12.82 | $12.82 |
| **Total revenue (savings) from cancelled services** | **$41,139** | **$79,009** | **$60,074** |

2072. ATCO submitted that the estimated IT cost to change its billing system to accommodate reduced (nil) cancellation charges was $50,000 (which was not included in ATCO's capital expenditure forecasts for AA5). Considering the information above, the possible savings to retailers and their customers appeared to outweigh the initial cost of changing ATCO's billing system. In any case, the ERA considered it unreasonable and inconsistent with the national gas objective for retailers to be charged the full service charge in circumstances where the service is cancelled with reasonable notice.

2073. In addition to monetary savings, ATCO also indicated other benefits that could arise from a change in its billing system.[714]

> The proposed change to ATCO's systems will allow retailers the ease of booking the job at their convenience whilst still having the ability to cancel if required closer to the activity date without penalty (more than three days from the read date). *[sic]*

2074. The ERA considered that given the possible benefits, ATCO should submit a proposal for introducing reduced charges for cancelled ancillary services to apply for AA5. The ERA noted that the introduction of such charges would involve changes to ATCO's billing system as well as changes to the access arrangement to detail the circumstances where charges will be payable and what the relevant charges will be.

> **Draft Decision Required Amendment 36**
>
> ATCO must amend the proposed revised access arrangement to introduce reduced cancellation charges for the following ancillary services that are cancelled with reasonable notice, which is taken to mean more than three business days prior to the scheduled service date.
>
> - Special meter reading

[713] ATCO reported 3,209 cancelled meter reads in 2017 and 6,163 in 2018. The average of these two years is 4,686.

[714] ATCO response to Information Request ERA 11, 8 March 2019.

- Applying a meter lock
- Removing a meter lock

2075. ATCO accepted the ERA's draft decision required amendment 36 to introduce reduced cancellation charges for some ancillary services. A nil charge will apply for the following services cancelled more than three business days prior to the scheduled date of service. Services cancelled after three days will incur a charge.

- Special meter reading
- Applying a meter lock
- Removing a meter lock

2076. ATCO proposed revised amendments to Annexure C (clauses 1.2, 1.3 and 1.6) of the access arrangement to introduce the nil charges. The additional IT capital cost to implement the nil charges was included in ATCO's revised forecast of capital expenditure for AA5. The ERA has considered ATCO's forecast capital expenditure elsewhere in this final decision (see paragraph 1083), along with the charges (tariffs) that are payable for ancillary services (see paragraph 1764).

2077. Submissions from Alinta Energy and Origin addressed the ERA's draft decision to require the introduction of reduced cancellation charges and ATCO's revised proposal to accept the requirement.

- Alinta supported the ERA's draft decision and agreed with ATCO's revised proposal.[715]
- Origin was pleased that ATCO had responded to retailer concerns about cancellation charges for ancillary services not undertaken.[716]

2078. ATCO's proposed revised amendments to Annexure C of the access arrangement are set out below. These amendments address the ERA's draft decision required amendment 36 and are consistent with the requirements of the NGR and the national gas objective.

**1.2. Applying a Meter Lock**

…

c) $49.14 (cancelling a request to Apply a Meter Lock during the period commencing three business days before the scheduled service date and ending on the scheduled service date as described under clause 8(f) of Schedule 4 and Schedule 5 of the Template Service Agreement).

d) $0.00 (cancelling a request to Apply a Meter Lock more than three business days prior to the scheduled service date as described under clause 8(f) of Schedule 4 and Schedule 5 of the Template Service Agreement).

**1.3. Removing a Meter Lock**

…

c) $26.73 (cancelling a request to Remove a Meter Lock during the period commencing three business days before the scheduled service date and

[715] Alinta Energy submission, 9 July 2019.

[716] Origin submission, 9 July 2019.

ending on the scheduled service date under clause 9(f) of Schedule 4 and Schedule 5 of the Template Service Agreement).

d) $0.00 (cancelling a request to Remove a Meter Lock more than three business days prior to the scheduled service date under clause 9(f) of Schedule 4 and Schedule 5 of the Template Service Agreement).

**1.6. Special Meter Reading**

…

c) $12.82 (Cancelling an out-of-cycle reading of a manually read meter at the relevant Delivery Point during the period commencing three business days before the scheduled service date and ending on the scheduled service date as described under clause 9(f) of Schedule 3, clause 12(f) of Schedule 4 and clause 12(f) of Schedule 5 of the Template Service Agreement).

d) $0.00 (Cancelling an out-of-cycle reading of a manually read meter at the relevant Delivery Point more than three business days prior to the scheduled service date as described under clause 9(f) of Schedule 3, clause 12(f) of Schedule 4 and clause 12(f) of Schedule 5 of the Template Service Agreement).

# Other access arrangement provisions

## *Application procedures*

2080. Rule 112 of the NGR details the requirements for requesting access to a pipeline service. As outlined at paragraph 44, changes to the NGR occurred in March 2019 (and after ATCO's access arrangement proposal submission to the ERA). These changes have affected the requirements for requesting access.

2081. Under transitional provisions, the GDS access arrangement is exempt from the changes made to Parts 8, 9 and 10 of the NGR. Rule 112 falls within Part 11 of the NGR and therefore applies to the GDS. The new requirements of rule 112 are as follows.

> **112 Requests for access**
>
> (1) A prospective user may request a scheme pipeline service provider to provide a pipeline service for the prospective user. For the purposes of this rule 112, the date that the prospective user's access request is received by the service provider is referred to as the "access request date".
>
> (2) The request must be made in writing and must:
>
> (a) state the time or times when the pipeline service will be required and the capacity that is to be utilised; and
>
> (b) identify the entry point where the user proposes to introduce natural gas to the pipeline or the exit point where the user proposes to take natural gas from the pipeline or, if the requested service is a haulage service, both entry and exit point; and
>
> (c) state the relevant technical details (including the proposed gas specification) for the connection to the pipeline, and for ensuring safety and reliability of the supply of natural gas to, or from, the pipeline.
>
> (3) The service provider must:
>
> (a) within 5 business days after the access request date, acknowledge receipt of the request; and
>
> (b) within 10 business days after the access request date, inform the prospective user:
>
> (i) that it is able to provide the requested pipeline service;
>
> (ii) that it needs to carry out further investigation to determine whether it can provide the requested pipeline service and provide the prospective user with a statement of the nature of the investigation and the reasonable costs of the investigation the prospective user would be required to meet; or
>
> (iii) that it is unable to provide the requested pipeline service.
>
> (4) If the service provider is unable to provide the requested pipeline service, it must:
>
> (a) provide the prospective user with written reasons explaining why the requested pipeline service cannot be provided; and
>
> (b) if there is some prospect that it will become possible to provide the requested service at some time in the future – give details (which must be as specific as the circumstances reasonably allow) of when

capacity to provide the requested service is likely to become available and, if possible, nominate a specific date.

(5) If the service provider is able to provide the service, it must, within 25 business days of the access request date, provide the terms and conditions on which the service provider is prepared to provide the requested pipeline service (the access proposal).

(6) If the service provider needs to carry out further investigation to determine whether it can provide the requested pipeline service and the prospective user agrees to the reasonable costs specified by the service provider under subrule 3(b)(ii), it must carry out the investigation and then, within 25 business days of the access request date, inform the prospective user:

(a) that it is able to provide the requested service; or

(b) that it is unable to provide the requested service.

(7) If the service provider is unable to provide the requested pipeline service it must include in its notification under subrule (6) the information specified in subrule (4).

(8) If the service provider is able to provide the service, it must, within 15 business days of providing the notice under subrule (6)(a), provide the terms and conditions on which the service provider is prepared to provide the requested pipeline service (the access proposal).

(9) If the prospective user:

(a) wants to seek access to the pipeline service based on the access proposal provided by the service provider under subrules (5) or (8), it must notify the service provider within 15 business days of receiving the access proposal; or

(b) wants to request amendments to the access proposal provided by the service provider under subrules (5) or (8), it must notify the service provider within 15 business days of receiving the access proposal and provide its requested amendments.

(10) Following the prospective user's response under subrule (9)(b), the service provider must respond within 15 business days. If the parties have not agreed on the service provider's proposal (or some negotiated modification of it) within a further 20 business days after the date of the service provider's response under this subrule, then the service provider is taken to have rejected the prospective user's request.

(11) The timeframes specified in subrules (5) to (11) may be extended if the relevant service provider and prospective user agree in writing.

## *ATCO's initial proposal*

2082. ATCO's application procedure and associated response times are shown in Figure 20. ATCO submitted that while its procedure "remains largely unchanged from AA4", it has standardised the processes for access to both the regulated GDS and Albany and Kalgoorlie non-scheme pipelines.[717] ATCO submitted that it:

- Provided prospective users with website links to its contact details.
- Replicated the confidentiality provisions within the application procedure.
- Specified an application form for ease of use by prospective users, which is set out in Annexure G of the access arrangement. The application form has the same 'look and feel' as the non-scheme pipeline application form with some

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

modifications to meet the requirements of rule 112 of the NGR and access arrangement.

- Included information on where the non-scheme pipeline user guide can be found, which, whilst not strictly required, may be useful to prospective users who are not familiar with the Western Australian gas market.

**Figure 20 ATCO's application procedure for access requests**


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

## *Draft decision*

2083. ATCO's proposed amendments to the application procedures in the proposed access arrangement did not materially alter the current procedures. The amendments provided additional information for prospective users and/or clarified the procedures for seeking access to pipeline services. At the time the ERA made its draft decision, the amendments (detailed in Table 197) were considered to be consistent with the national gas objective and the requirements of rule 112 of the NGR.

**Table 197: ATCO's proposed amendments to Part 5 (Application procedure) of the access arrangement**

| ATCO's proposed amendments to Part 5 of the access arrangement |
|---|
| *Part 5.1 Prospective Users and Pipeline Services*<br>New wording to clarify that pipeline services are provided by ATCO by means of the GDS.<br>New website (URL) information to direct prospective users seeking access to relevant information on ATCO's website. |
| *Part 5.2 Application Information*<br>New wording added to clarify application information for:<br>– minimum prudential and insurance requirements are set out in the application form.<br>– a proposed system pressure protection plan is specified in Part 5.7.<br>New wording added to reflect ATCO's confidential treatment of application information and that ATCO will only use this information for the purpose for which it was disclosed. |
| *Part 5.3 Application Procedure for Prospective Users*<br>Updated wording to specify that the form to request access to pipeline services is the application form at Appendix G of the access arrangement. |

**ATCO's proposed amendments to Part 5 of the access arrangement**

*Part 5.5 Pre-conditions to and restrictions on the provision of Pipeline Services*

Updated wording to use the terms "prospective user" (in addition to the term *user*) and "in accordance with accepted good industry practice" (instead of *prudent pipeline practices*).

*Part 5.7 System Pressure Protection Plan*

New wording to clarify that the standard protection plan acceptable to ATCO is shown at Appendix E of the access arrangement.

## *ATCO's response to the draft decision*

2084. ATCO submitted that given the changes to the NGR, ATCO revised its application procedures to meet the new requirements of rule 112.[718] ATCO's revised application procedures and response times for applying are shown in Figure 21.

**Figure 21: ATCO's revised application procedure for access requests**


*Source: ATCO, 2020-24 Revised Plan* (Access Arrangement Information)*, 12 June 2019, Figure 21.1.*

2085. Table 198 details the revised amendments made to Part 5 of the access arrangement, which ATCO submitted were necessary to cover the new requirements of rule 112 of the NGR. The revised amendments are also shown in a marked-up copy of the proposed revised access arrangement.[719]

[718] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, section 21.4, pp. 274-275.

[719] ATCO, *Access Arrangement for the Mid-West and South-West Gas Distribution Systems, 12 June 2019 – tracked changes* (online) (accessed July 2019).

**Table 198: ATCO's revised amendments to Part 5 (Application procedure) of the access arrangement**

| Access arrangement reference | Description of revised amendment |
|---|---|
| 5.3(a) | New wording added to refer to rule 112 of the NGR and the requirements for certain information when making a request for access to a pipeline service. |
| 5.3(b) to (j) | Existing provisions deleted and replaced with new provisions (5.3(b) to (j)) that adopt the wording used in rule 112. |
| 5.3(k) | Wording amended to refer to an "access proposal" for consistency with other amendments made to clause 5.3. |
| Appendix G, Section 2 | New wording added to refer to the information required (under rule 112(2)) when making a request for access to a pipeline service. |

*Source: ATCO, 2020-24 Revised Plan (Access Arrangement Information), 12 June 2019, Table 21.2 and Access Arrangement for the Mid-West and South-West Gas Distribution Systems, 12 June 2019*

## *Submissions to the ERA*

2086. Alinta Energy's submission to the ERA addressed ATCO's initial proposal for application procedures. Alinta agreed with ATCO's initial proposal to standardise the process for access to the regulated gas distribution system and non-scheme pipelines in Albany and Kalgoorlie.[720]

2087. There were no other submissions in response to the draft decision or ATCO's revised proposal that addressed the changes to the application procedures.

## *Final decision*

2088. ATCO proposed to amend the requirements for requesting access to a pipeline service in Part 5 of the access arrangement based on the new requirements of rule 112 of the NGR.

2089. ATCO's revised proposal follows the procedures and timeframes outlined in rule 112 of the NGR and largely reproduces the wording used in the rule (references to "service provider" have been replaced with references to "ATCO Gas Australia"). For this reason, and aside from the minor amendments identified below (at paragraph 2090), the ERA considers ATCO's revised proposal meets the new requirements of rule 112 of the NGR.

2090. The ERA has identified the following minor amendments to clause 5.3 of the access arrangement:

- A formatting amendment to clause 5.3(b) to make clause 5.3(b)(iii) a new clause 5.3(b)(C), as the subclause follows the introductory sentence "within 10 business days after the Access Request Date, inform the Prospective User: ...".
- The words "will", as they appear in clauses 5.3(d) and 5.3(e) must be amended to read "must".

[720] Alinta Energy submission, 14 November 2018, p. 9.

**Required Amendment 20**

Clause 5.3 of the proposed revised access arrangement must be amended to make clause 5.3(b)(iii) a new clause 5.3(b)(C). The word "will" as it appears in clause 5.3(d) and clause 5.3(e) must be amended to read "must".

## *Capacity trading*

2091. Rule 48(1)(f) of the NGR requires a full access arrangement to set out capacity trading requirements.

> **48 Requirements for full access arrangement (and full access arrangement proposal)**
>
> (1) A full access arrangement must:
>
> (a) …
>
> (f) set out the capacity trading requirements; and

2092. Rule 105 of the NGR set out the capacity trading requirements.

> **105 Capacity trading requirements**
>
> (1) Capacity trading requirements must provide for transfer of capacity:
>
> (a) if the service provider is registered as a participant in a particular gas market – in accordance with rules or Procedures governing the relevant gas market;
>
> or
>
> (b) if the service provider is not so registered, or the relevant rules or Procedures do not deal with capacity trading – in accordance with this rule.
>
> (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:
>
> (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.

(4) The service provider must not withhold its consent under subrule (3) unless it has reasonable grounds, based on technical or commercial considerations, for doing so.

(5) An adjustment of rights and liabilities under subrule (3) does not affect rights or liabilities that had accrued under, or in relation to, the contract before the transfer took effect.

(6) The capacity trading requirements may specify in advance conditions under which consent will or will not be given, and conditions to be complied with if consent is given.

2093. The capacity trading requirements must provide for the transfer of capacity in accordance with rules 105(1)(a) and (b) 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.

2094. Rules 105(2) and 105(3) of the NGR allow a user to transfer, by way of subcontract, all or any of its contracted capacity to another (a third party) 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:

(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.

2095. Rule 105 further provides that:[721]

- The service provider must not withhold its consent to a transfer unless it has reasonable grounds, based on technical or commercial considerations, for doing so.
- An adjustment of rights and liabilities under a transfer 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.

### *ATCO's initial proposal*

2096. ATCO did not propose any amendments to the capacity trading requirements for AA5. The capacity trading requirements remain unchanged from the current access arrangement 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).

### *Draft decision*

2097. The capacity trading requirements remained unchanged from the current (AA4) requirements. There were no submissions from interested parties seeking any amendments to the requirements. For these reasons, and in the absence of any other reason to amend the requirements, the ERA considered that the current capacity trading requirements met the requirements of the NGR.

### *ATCO's response to the draft decision*

2098. ATCO did not make any changes to the capacity trading requirements.

### *Submissions to the ERA*

2099. No submissions to the ERA addressed ATCO's initial proposal for capacity trading requirements and its decision to leave these requirements unchanged.

2100. There were no submissions in response to the draft decision.

### *Final decision*

2101. ATCO has not amended its proposal for capacity trading requirements. There were no submissions from interested parties on this matter. For these reasons, the ERA maintains its draft decision position that the capacity trading requirements meet the requirements of the NGR.

## *Extension and expansion requirements*

2102. Rule 48(1)(g) of the NGR requires a full access arrangement to set out extension and expansion requirements.

[721] NGR, rules 105(4), 105(5) and 105(6).

> **48 Requirements for full access arrangement (and full access arrangement proposal)**
>
> (1) A full access arrangement must:
>
> (a) …
>
> (g) set out the extension and expansion requirements; and

2103. The extension and expansion requirements 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.

## *ATCO's initial proposal*

2104. 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 current requirements.[722]

2105. ATCO advised that the proposed development rebate scheme was in response to feedback from land developers that the cost to reticulate and connect commercial subdivisions to the gas distribution network prevented developers from including reticulated gas in the subdivision.[723]

2106. Under ATCO's initial proposal, the scheme would allow for an agreement setting out operational rights and obligations to be put in place between ATCO and the developer. To minimise administration costs, the scheme would be limited to subdivisions where the capital funding provided by the developer was in excess of $50,000. Benefits of the scheme would apply to both commercial tenants and other customers.

2107. Features of the proposed development rebate scheme included:

- Where a land developer requests capital works to reticulate gas in a subdivision, ATCO would consider whether the proposed investment would likely conform to rule 79 of the NGR, in particular, that the present value of the expected additional revenue to be generated as a result of the expenditure exceeds the present value of that expenditure.
  - ATCO previously asked land developers to contribute capital toward the overall cost of the development for the portion that it considered did not satisfy rule 79. ATCO received feedback from land developers that this

[722] New Part 7.5 of the access arrangement.

[723] ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, pp. 193-194.
ATCO, *Attachment 23.1 Development Rebate Scheme Explanatory Memorandum*, 31 August 2018.

contribution prevented these developers from incorporating gas reticulation into commercial subdivisions.

- The proposed scheme would allow for land developers to receive a rebate of some, or all, of the capital they contributed towards the overall cost of reticulating gas in commercial subdivisions. A rebate would be paid following the connection of end-users in the subdivision to the gas network.
  - ATCO would determine the rebate amount through an economic analysis, similar to the analysis under rule 79(2)(b) of the NGR, such that the rebate is no more than the net present value of the expected incremental revenue and costs of the new end user. The rebate would also be capped at the value of the land developer's contribution.
- The operational details of the scheme appeared to be determined in agreement between ATCO and the land developer. ATCO's proposal did not provide details of the method, except that it would follow current internal procedures. The ERA would not consider any arrangements made between ATCO and the land developer.
- ATCO's recoverable costs would also include a time value of money adjustment to account for the timing difference between ATCO paying the rebate to the developer and the start of the next access arrangement period, when tariffs would adjust to include the rebate amount in the regulated asset base.
- The proposed scheme would introduce a fixed principle which would require the ERA to include a return on and of the rebate amount in the reference tariffs until the rebate was fully depreciated based on the asset lives of the underlying capital expenditure.[724] The fixed principle would allow for ATCO to automatically recover all rebates as capital costs under an undefined scheme. At present, the ERA assesses all capital costs for compliance against the requirements of the NGR. Acceptance of this fixed principle would obviate any requirement for the ERA to consider each case on its merits.

2108. The other minor amendments to Part 7 of the proposed access arrangement included:

- Amending the annual reporting timeframe for extensions and expansions from 20 to 40 business days to accommodate the December/January holiday period.
- Amending 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 section 3 of the Energy Coordination Act 1994 definition.

## *Draft decision*

2109. ATCO's proposed extension and expansion requirements provided for the following:

- ATCO must apply to the ERA for a decision on whether an extension designed to operate at above 1,900kPa or extensions that provide 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) are to be covered by the access arrangement.
- All other extensions are automatically covered by the access arrangement.

[724] Fixed principles are discussed at paragraph 1851 of this decision.

- All expansions are automatically covered by the access arrangement.
- ATCO must annually report to the ERA the details of all extensions and expansions in progress or completed.

2110. ATCO's proposal to amend the definition of the pressure threshold for high pressure pipelines, from 1,920kPa to 1,900kPa, was consistent with the *Energy Coordination Act 1994* and was the same threshold used for ATCO's Distribution Licence.[725] The amendment was also consistent with the requirements of the NGR and national gas objective.

2111. ATCO's proposal to amend the annual reporting timeframe to report extensions and expansions to the ERA, from 20 to 40 business days, was also consistent with the requirements of the NGR and national gas objective. The timeframe to report to the ERA commenced each 1 January, which was identified as a challenging period for businesses given Christmas and New Year staff leave and/or closures. ATCO's proposal to extend the timeframe to 40 business days would provide ATCO with more time to overcome such challenges with no adverse effects on other parties, including the ERA.

***Development rebate scheme***

2112. ATCO considered that its proposed development rebate scheme was part of the extension and expansion requirements because it addressed the effect of the extension or expansion on reference tariffs. ATCO noted that "there are no other relevant provisions that are related to the establishment or operation of a rebate scheme under the NGR or the NGL".

2113. Rule 104(2) of the NGR states:

> 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.

2114. The ERA considered that:

- The effect on tariffs was usually a decision on whether to amend tariffs immediately or wait until the next access arrangement period depending on the significance of the extension or expansion. In any event, any effect on tariffs would need to comply with the national gas objective and the NGR, particularly rule 79 and the assessment of whether the extension or expansion could be added to the capital base. ATCO's capital investment is assessed against rule 79 of the NGR.[726] Only capital investment that conforms to the provisions of this rule can be recovered through ATCO's tariffs.
- Rule 79 (or other rules) did not contemplate the addition of previous capital contributions into the regulatory asset base in the form of rebates.

2115. ATCO cited the following schemes that it submitted were like the scheme it proposed:[727]

- Section 10 of Western Power's capital contribution policy provides for rebates.

[725] The *Energy Coordination Act 1994* and ATCO's Distribution Licence both refer to distribution system rather than distribution network.

[726] Rule 79 covers new capital expenditure criteria.

[727] ATCO response to information request ERA 3 (Confidential), 12 October 2018.

- Chapter 5A of the National Electricity Rules specifies the obligations of network businesses in relation to establishing and operating refund schemes for capital contributions relating to retail customers.

2116. The ERA determined that the Western Power example was not part of an approved access arrangement but was simply a rebate scheme which could operate alongside or independently of the access arrangement. Chapter 5A of the National Electricity Rules referred to schemes for refunding customer contributions, not developer contributions.

2117. ATCO contended that it was the extent of developers' contributions (which ATCO currently sought in respect of costs which do not conform to rule 79) that had prevented a large proportion of land developers from incorporating gas reticulation into their developments.

2118. Rule 79 ensures that regulated tariffs do not reflect the cost of infrastructure that does not deliver a corresponding benefit to customers. The inclusion of assets as conforming assets under rule 79 requires the ERA's assessment and approval. ATCO's proposed development rebate scheme would take the responsibility for this assessment from the ERA and allow ATCO, using its own internal processes, to determine when this non-conforming capital expenditure becomes conforming capital expenditure. Under the associated proposed fixed principle, this would mean that all capital expenditure determined to be conforming by ATCO would be included in the capital base, without approval by the ERA.

2119. The ERA considered that the purpose of the rule on conforming capital expenditure (rule 79) is to prevent the recovery of unwarranted capital expenditure in the cost of gas, and so prevent unwarranted increases in the price of gas. While submissions from Alinta Energy[728] and the Urban Development Institute of Australia (WA)[729] supported ATCO's proposed scheme and considered the rules a disincentive to reticulating gas in new subdivisions, they did not outline how the existing rules were inadequate in this respect. Alinta submitted the development rebate scheme would "drive down the cost of gas as uptake increases". However, Alinta did not outline the mechanism by which this might occur.

2120. Synergy did not support the proposed rebate scheme being funded from tariffs or being included as a fixed principle in the access arrangement. Synergy considered that ATCO should use existing "general marketing and business development expenditure" allocations to support developers.[730]

2121. For the reasons outlined above, the ERA considered that ATCO's proposed development rebate scheme was inconsistent with the requirements of the NGR and national gas objective and required it to be deleted from the access arrangement.

**Draft Decision Required Amendment 37**

ATCO must delete section 7.5 (Development Rebate Scheme) from the proposed revised access arrangement.

2122. The ERA concluded that an alternative to ATCO's existing requirement, for developers to pay a capital contribution, would be for ATCO to undertake the full investment itself and then request for any portion that does not meet rule 79 to be

[728] Alinta Energy submission, 14 November 2018, p. 9.

[729] Urban Development Institute of Australia (WA) submission, 14 November 2018.

[730] Synergy submission, 14 November 2018, p. 8.

added to a speculative capital expenditure account as allowed under rule 84 of the NGR. Then, if the speculative investment amount subsequently meets the requirement of rule 79, it could be added to the regulatory asset base and a return on and of the amount could occur through the reference tariffs.

## *ATCO's response to the draft decision*

2123. ATCO did not accept the ERA's draft decision requirement 37 to delete the development rebate scheme from the access arrangement and instead revised the scheme to address the matters raised in the ERA's draft decision, in particular by clarifying the role of the ERA in approving the rebate amounts that can be recovered through reference tariffs.[731] ATCO considered that its revised development rebate scheme was consistent with the national gas objective and the requirements of the NGR.[732]

2124. ATCO's proposed revisions to section 7.5 (Development Rebate Scheme) of the access arrangement are detailed in Appendix 7 of this final decision.

### *Overview of the revised scheme*

2125. ATCO submitted that it was unnecessary for the ERA to have oversight of the specific arrangements between ATCO and the developer for the following reasons.[733]

> Balanced negotiating power: the land developers that will be seeking access to Development Rebate Scheme are sophisticated parties that are used to negotiating commercial contracts. ATCO considers that it will be in both parties' interests to negotiate in good faith.
>
> Flexibility: allowing for a negotiated outcome between ATCO and the land developer will allow for the Development Rebate Scheme to meet the particular characteristics of the subdivision and the land developer, the timing of the release of the subdivision, the likely timing of new connections within the subdivision and the period that the Scheme will operate, amongst other things.

2126. The operation of the development rebate scheme will rely on an agreement between ATCO and the land developer, with the agreement expected to cover (as a minimum):[734]

- the period over which the rebates will be available
- the rebate criteria
- the method and timing of the rebate payment
- the allocation of liabilities for tax costs
- any compliance or reporting requirements
- dispute resolution arrangements.

[731] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 273.
[732] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 276.
[733] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 277.
[734] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 277.

2127. ATCO acknowledged the provisions for a "speculative capital investment account" but considered that the use of this account did not provide any incentive for ATCO to reticulate commercial subdivisions.[735]

> ATCO recognises that the Access Arrangement includes provisions for a speculative capital expenditure account that could be applied to the portion of capital expenditure costs associated with reticulating the commercial subdivision that do not satisfy NGR 79. ATCO does not consider that the use of the speculative capital expenditure account provides any incentive for ATCO to reticulate commercial subdivisions because ATCO is not able to control how the subdivisions are marketed or have any influence as to the ultimate purchasers of the lots in the subdivisions. Given the low risk margins in the rate of return, it is highly unlikely that ATCO would seek to take on the risk of recovering the capital by using the speculative capital expenditure account to reticulate commercial subdivisions. ATCO is proposing the Development Rebate Scheme as it considers that land developers are best placed to manage the risks associated with recovering the reticulation costs from future gas users.

### *National gas objective and rule 79*

2128. ATCO agreed with the ERA's draft decision position that any effect on tariffs from the scheme would still need to comply with the national gas objective and the intent of rule 79 and rule 104 of the NGR.[736]

> ATCO recognises that there is a need for the rebate amount recovered through reference tariffs to comply with the national gas objective and the intent of NGR 79. As such, the Scheme requires that the amount of the rebate will reflect the amount that would be consistent with Conforming Capital Expenditure. Conforming Capital Expenditure is a defined term that refers to the NGR and, through the definitions in NGR 69, picks up NGR 79.
>
> In order to address the position in the ERA's Draft Decision that the scheme enabled ATCO to determine capital expenditure to be conforming, we have amended the Access Arrangement to:
>
> - Existing sections 7.5(a)(iv) and 7.5(b) – amend the drafting to state that ATCO will 'estimate' rather than 'determine' the amount of that would be conforming capital expenditure under NGR 79.
> - New sections 7.5(f) and 7.5(g) – amend the drafting to include an approval role for the ERA at the next access arrangement review within the extension and expansion requirements. This ensures that it is the ERA that determines the efficiency and prudency of the costs that are recovered through reference tariffs within an existing process that is assessing the efficiency and prudency of costs.

### *Addition of capital contributions*

2129. ATCO submitted that it was not seeking to incorporate previous capital contributions into the regulatory asset base under the scheme – to do so would result in the double recovery of costs.[737]

2130. ATCO has not sought for the rebate amounts to be classified as capital expenditure. Rather, it sought for "the rebate amounts to be treated consistently with the intent of [rule 79] and with conforming capital expenditure". ATCO will not roll the rebate amounts into the regulatory capital base. Instead the proposed fixed principle

[735] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 277.

[736] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 278.

[737] ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 278.

provides for an amount to be included in the total revenue until the amounts are fully depreciated.[738]

2131. ATCO has amended the scheme to ensure that it would only recover costs through reference tariffs in future access arrangement periods following the approval of the costs by the ERA. ATCO will not be able to recover the amounts that have not been rebated to the developer. ATCO submitted that to put this beyond doubt, new section 7.5(h) in the access arrangement confirms that the reference tariffs in the next and subsequent access arrangement periods will not be affected by an extension that has been funded by a third-party that are not related to the rebate amounts approved by the ERA.[739]

***Assessment and approval***

2132. ATCO has added new sections (7.5(f) and 7.5(g)) to the access arrangement to introduce, within the extension and expansion requirements, an assessment and approval role for the ERA. ATCO submitted that this was consistent with the scope of rule 104 of the NGR. It further submitted:[740]

> ATCO is seeking for the ERA to approve the efficiency and prudency of the costs that are recovered through reference tariffs under the scheme as part of the access arrangement revisions process. This is an existing process that already incorporates the assessment of the efficiency and prudency of costs. Incorporating the assessment of costs under the scheme into this existing process is the most efficient method to assess the costs. ATCO considers that it is unlikely to increase the time or costs associated with the access arrangement revisions process for either the ERA or ATCO.
>
> ATCO has maintained the Development Rebate Scheme being available for subdivisions where the capital funding provided by the developer is in excess of $50,000. We have continued to adopt this threshold to minimise the administration costs of the scheme both to ATCO, and the ERA, at the next access arrangement review process.

## *Submissions to the ERA*

2133. Several submissions to the ERA addressed ATCO's initial proposal to introduce a development rebate scheme.[741] The ERA considered these submissions as part of the draft decision.

2134. No submissions to the ERA addressed ATCO's initial proposal to make other minor amendments (see paragraph 2108) to the extension and expansion requirements.

2135. AGL Energy and Synergy made submissions in response to the ERA's draft decision and ATCO's revised proposal.

- AGL submitted:[742]

  > [T]hat some provision should be made to ensure there is continued growth of new connections within the gas market in the most efficient and effective manner possible, such as through the proposed Developer Rebate Scheme. AGL's experience in other jurisdictions is that allowing a gas distribution network to extend its service as part of a new estate development is the most cost effective and efficient way to provide

738 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 278.

739 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, pp. 278-279.

740 ATCO, *2020-24 Revised Plan (Access Arrangement Information)*, 12 June 2019, p. 279.

741 Submissions from Alinta Energy, the Urban Development Institute of Australia (WA) and Synergy.

742 AGL Energy submission, 9 July 2019.

reticulated gas services to new customers whilst maximising the penetration of gas supply services. As a gas retailer, AGL supports mechanisms which will provide for efficient growth of the West Australian gas customer base.

- Synergy noted that ATCO was "proposing the ability to recover the development rebate scheme costs through reference tariffs in future access arrangement periods". Synergy stated that "the ERA should consider the appropriateness of this request and whether it is consistent with the [national gas objective]".[743]

## *Final decision*

2136. The ERA did not receive any submissions on the draft decision that addressed ATCO's other minor amendments to the extension and expansion requirements (see paragraph 2109). For this reason, the ERA maintains its draft decision position to accept ATCO's proposal to:

- Amend the definition of the pressure threshold for high pressure pipelines, from 1,920kPa to 1,900kPa.
- Amend the annual reporting timeframe to report extensions and expansions to the ERA, from 20 to 40 business days.

***Development rebate scheme***

2137. The ERA's draft decision required amendment 37, addressing ATCO's proposed development rebate scheme, required the development rebate scheme (section 7.5) and associated fixed principle (section 11.5) to be deleted from the access arrangement.

2138. In its draft decision, the ERA considered that ATCO's proposed scheme did not meet the objectives of the NGR. The ERA considered that ATCO's objectives to support the development of distribution infrastructure may be achieved via the existing provisions of rule 79 of the NGR.

2139. ATCO did not accept the ERA's draft decision required amendment 37, and instead provided revisions to its proposed scheme. ATCO considered that both its initial and revised development rebate scheme were consistent with the national gas objective and the requirements of the NGR.

2140. In its response to the draft decision, ATCO argued that the existing speculative capital expenditure account did not provide incentives for it to reticulate commercial subdivisions because it is unable to control how the subdivisions are marketed and it does not have any influence on the ultimate purchasers of the lots in subdivisions.

2141. AGL's submission supporting the revised development rebate scheme did not address the rule requirements for extension and expansions, or the way in which the proposed scheme was expected to meet the objectives of the national gas access regime. AGL instead referred to the aims of cost effectiveness and efficiency in the provision of services to new customers, while maximising penetration of gas supply services.

2142. The ERA considers that maximising the penetration of gas supply services by removing the commercial risks of speculative capital expenditure is not justified on economic efficiency grounds or by the national gas objective. The removal of such

[743] Synergy submission, 10 July 2019.

risks may not provide efficient outcomes and may not be in the long-term interests of consumers of natural gas with respect to the price of natural gas.

2143. Synergy's submission urged that the appropriateness of the proposed scheme be carefully considered in terms of the national gas objective. Synergy previously commented that ATCO should use existing "general marketing and business development expenditure" allocations to support developers.

2144. The ERA considers that there are appropriate models of commercial rebate schemes in place which operate outside regulated arrangements. [redacted].[744] The Western Power scheme is, however, not a part of a regulated access arrangement. It is a contract directly between Western Power and the electricity customer, not between Western Power and the developer.

2145. The NGR provide adequate mechanisms for the recovery of reasonable speculative investment, while protecting the existing Western Australian gas customer base from the risk and other cost outcomes of unnecessary speculative investment. The purpose of the rule on conforming capital expenditure (rule 79 of the NGR) is to prevent the recovery of capital expenditure that does not have a commensurate consumer benefit. The submissions in support of ATCO's development rebate scheme did not outline the ways that the existing rules are inadequate in this respect. The ERA does not agree that recovery of development capital expenditures may be addressed, as part of an access arrangement, via a mechanism which bypasses existing provisions in the NGR. To do so would be inconsistent with the regulatory framework.

2146. Further, the ERA does not agree with the related proposed fixed principle (clause 11.5 in the proposed revised access arrangement), which would presume a new function of the ERA. This new function, which is not contemplated by the NGR, would require the ERA, at ATCO's discretion, to consider approving capital expenditure estimated as conforming by ATCO. The ERA has considered the matter of fixed principles elsewhere in this final decision (see paragraph 1851).

2147. For the reasons outlined above, ATCO must delete section 7.5 (Development Rebate Scheme) from the proposed revised access arrangement and associated defined terms of "Development Rebate Scheme Costs" and "Rebate Amount". Consequently, ATCO must also delete the fixed principle referred to in paragraph 1887 of this final decision.

**Required Amendment 21**

Section 7.5 (Development Rebate Scheme) and defined terms "Development Rebate Scheme Costs" and Rebate Amount" must be deleted from the proposed revised access arrangement.

## *Receipt and delivery points*

2148. Rule 48(1)(h) of the NGR requires a full access arrangement to state the terms and conditions for changing receipt and delivery points.

[744] ATCO response to information request ERA 3 (Confidential), 12 October 2018.

> **48 Requirements for full access arrangement (and full access arrangement proposal)**
>
> (1) A full access arrangement must:
>
> (a) …
>
> (h) state the terms and conditions for changing receipt and delivery points; and

2149. Rule 106 of the NGR establishes the requirements for changing receipt and delivery points.

> **106 Change of receipt or delivery point by user**
>
> (1) An access arrangement must provide for the change of a receipt or delivery point in accordance with the following principles:
>
> (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.
>
> (2) The access arrangement may specify in advance conditions under which consent will or will not be given, and conditions to be complied with if consent is given.

2150. The terms and conditions in the access arrangement for the change of receipt or delivery points must be in accordance with the principles listed in rule 106(1) of the NGR.

2151. The access arrangement may specify in advance the conditions under which consent will (or will not) be given, and the conditions to be complied with if consent is given (rule 106(2) of the NGR).

## *ATCO's initial proposal*

2152. ATCO did not propose any amendments to the terms and conditions for changing receipt and delivery points for AA5. The terms and conditions remain unchanged from the current AA4 terms and conditions and are specified in Part 8 of the access arrangement and clause 5 of the template service agreement (Annexure F of the access arrangement).

## *Draft decision*

2153. The terms and conditions for changing receipt and delivery points remain unchanged from the current AA4 terms and conditions. There were no submissions from interested parties seeking any amendments to these terms and conditions. For these reasons, and in the absence of any other reason to amend the terms and conditions, the current terms and conditions for changing receipt and delivery points were considered to meet the requirements of the NGR.

## *ATCO's response to the draft decision*

2154. ATCO did not make any changes to the terms and conditions for changing receipt and delivery points.

## *Submissions to the ERA*

2155. No submissions to the ERA addressed ATCO's initial proposal for the terms and conditions for changing receipt and delivery points and ATCO's decision to leave this unchanged.

2156. There were no submissions in response to the draft decision.

## *Final decision*

2157. ATCO has not amended its proposal for the terms and conditions for changing receipt and delivery points. There were no submissions from interested parties on this matter. For these reasons, the ERA maintains its draft decision position that the terms and conditions for changing receipt and delivery points meet the requirements of the NGR.

# Appendix 1 List of Tables

# Appendix 2 List of Figures

# Appendix 3 Abbreviations

| | |
|---|---|
| AA3 | third access arrangement period |
| AA4 | fourth access arrangement period |
| AA5 | fifth access arrangement period |
| AA6 | sixth access arrangement period |
| AER | Australian Energy Regulator |
| AGN | Australian Gas Networks |
| ATCO | ATCO Gas Australia |
| ATO | Australian Taxation Office |
| CIC meterset | customer initiated commercial meterset |
| CPI | consumer price index |
| DBNGP | Dampier to Bunbury Natural Gas Pipeline |
| DCVG surveys | direct control voltage gradient surveys |
| DRP | debit risk premium |
| DV method | diminishing value method (for depreciation) |
| EMCa | Energy Market Consulting Associates |
| ERA | Economic Regulation Authority |
| GDS | Mid-West and South-West Gas Distribution System |
| GIS | geographical information systems |
| GJ | gigajoule |
| KPI | key performance indicator |
| MRP | market risk premium |
| NGL | National Gas Law |
| NGO | national gas objective |
| NGR | National Gas Rules |
| NPV | net present value |
| PE | polyethylene |
| PVC | polyvinyl chloride |
| PwC | PricewaterhouseCoopers |
| SAIDI | system average interruption duration index |
| SAIFI | system average interruption frequency index |
| SCADA | supervisory control and data acquisition |
| SL method | Straight line method (for depreciation) |
| TJ | terajoule |
| UAFG | unaccounted for gas |
| WACC | weighted average cost of capital |

# Appendix 4 Submissions Received

**Submissions received in response to the Economic Regulation Authority's initiating notice and/or issues paper.**

AGL Energy Ltd, *Issues paper on proposed revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020-2024*, 14 November 2018.

Alinta Energy, *Proposed Revisions to the Mid-West and South-West Gas Distribution System Access Arrangement for the 2020 to 2024 – Issues Paper*, Alinta Energy Submission, 14 November 2018.

Kawasaki Heavy Industries Ltd, *Submission in response to ERA's issues paper*, 14 November 2018.

Professor Craig Buckley, *Submission to ERA in support of ATCO's Innovation Scheme and Clean Energy Innovation Hub* (received 12 November 2018).

Synergy, *Response to issues paper on proposed revisions to the mid-west and south-west gas distribution systems access arrangement*, 14 November 2018.

Urban Development Institute of Australia (Western Australia), *Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024*, 14 November 2018.

Wesfarmers Kleenheat Gas Pty Ltd, *Kleenheat submission on the proposed revised access arrangement for Mid-West to South-West Gas Distribution Systems*, 13 November 2018.

**Submissions received in response to the Economic Regulation Authority's draft decision and ATCO's revised access arrangement proposal.**

AGL Energy Limited, *ERA Draft Decision on ATCO 2020-2024 Access Arrangement (AA5)*, 9 July 2019.

Alinta Energy, *Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024*, 15 July 2019.

Department of Mines, Industry Regulation and Safety, *Comments on part of technical content of the draft decision of Access Arrangement for Period 2020-2024*, 9 July 2019.

Energy Networks Australia, *Submission to ATCO 2020 to 2024 Access Arrangement Draft Decision*, 10 July 2019.

Kleenheat, *Kleenheat response to the Draft Decision on Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024 and ATCO's 2020-24 Revised Access Arrangement*, 9 July 2019.

Origin, *Proposed revised access arrangement for the Mid-West and South-West Gas Distribution Systems – Draft Decision and ATCO revised proposal*, 9 July 2019.

Strata Community Association WA, *Support for continuation of subs to masters gas meter program*, 9 July 2019.

Synergy, *Submission to the Economic Regulation Authority's draft decision on proposed revisions to the Mid-West and South-West gas distribution systems access arrangement for 2020 to 2024*, 10 July 2019.

*Late submission*

ATCO, *Response to the Alinta / Kleenheat comments on ATCO's revised plan*, 31 July 2019.

**Submissions received in response to the Economic Regulation Authority's commissioned Woollahra Partners report.**

Alinta Energy, *Proposed Revised Access Arrangement for the Mid-West and South-West Gas Distribution Systems Consultation – Demand Forecasts*, 16 September 2019.

ATCO, *Woollahra Partners Review of ATCO's AA5 Demand Forecasts*, 16 September 2019.

# Appendix 5 Tariff Model – Public Version

This appendix is published separately on the ERA's website.

# Appendix 6 Discounted Weighted Average Tariff

Average tariffs over several years may be combined to a single value through the discounted weighted average tariff (DWAT) approach. The DWAT is defined as the constant price in real terms (after adjusting for inflation), which, applied to each unit sold over the evaluated life of the investment producing the product, gives the required overall rate of return on the investment.

$$DWAT = \frac{Present\ Value\ of\ Revenue\ over\ the\ evaluated\ life\ of\ the\ investment}{Present\ Value\ of\ Product\ Sold\ over\ the\ evaluated\ life\ of\ the\ investment}$$

The *Present Value of Revenue* is the sum, over all the years of the evaluated life of the investment, of:

$$\frac{Revenue_t}{\left(1+\frac{r}{100}\right)^t}$$

where:

| | | |
|---|---|---|
| *t* | = | the year, counting from zero in the initial year |
| $Revenue_t$ | = | revenue in year t |
| *r* | = | discount rate (%) |

$Revenue_t$, and the discount rate (*r*) may both be in real terms (corrected for inflation) or both be in nominal terms (not corrected for inflation).

The *Present Value of Product Sold* is the sum, over all the years of the evaluated life of the investment, of:

$$\frac{Quantity_t}{\left(1+\frac{r}{100}\right)^t}$$

where:

| | | |
|---|---|---|
| *t* | = | the year, counting from zero in the initial year |
| *Quantity*t | = | quantity sold in year t |
| *r* | = | real discount rate (%) |

The discounting of quantity sometimes causes conceptual difficulties. Note that it is not quantity as such which is being discounted, but the value of the quantity sold – it is part of the weighting process.

## *Assumptions used in DWAT calculations*

The ERA calculated the discounted weighted average tariff for:

- Existing customers
- Existing customers with the addition of new greenfield customers
- Existing customers with the addition of new brownfields customers

For all scenarios, the ERA has:

- Calculated revenue using a cost-of-service approach as the sum of operating expenditure, return on assets and depreciation. A real pre-tax WACC has been used instead of separately calculating taxation. No allowance as been assumed for working capital or equity raising costs for simplicity and these costs are not material.
- Used the real pre-tax WACC calculated based on the WACC used for the draft decision, to discount the revenue in real dollars and the volume. The real pre-tax WACC is 6.2 per cent.
- Applied the AA5 forecast real input labour escalation growth rate to operating expenditure and then forecast the escalation growth rate at 1.25 per cent after AA5, consistent with the NPV modelling.
- Used the ERA's tariff model and extended that model to calculate the DWAT over a 50 year period consistent with the NPV modelling.

The customer numbers used in the DWAT analysis incorporate the following assumptions:

- Existing customers:
  - B2 customer numbers decline by 0.6 per cent a year.
  - B3 customer numbers decline by 0.5 per cent a year.
- Greenfield and Brownfield customers:
  - B2 customer numbers decline by 0.6 per cent a year commencing 10 years following connection (consistent with ATCO's assumption in NPV modelling).
  - B3 customer numbers decline by 0.5 per cent a year commencing 10 years following connection (consistent with ATCO's assumption in NPV modelling).

The gas consumption per customer assumptions are as follows:

- Greenfield and Brownfield consumption per customer values as assumed by ATCO in its NPV modelling, except for a forecast decline by 0.5 per cent a year on mature customer demand following AA5. An 8 GJ per customer floor in consumption is maintained from ATCO's NPV model.
- Existing consumption per customer values for AA5 as forecast by the ERA in the draft decision, then the decline in consumption per customer matches greenfield and brownfield assumptions.

The capital expenditure assumptions are as follows:

- Capital expenditure for AA5 was calculated for existing customers by removing contingent expenditure on greenfield or brownfield customer growth.

Greenfield and brownfield capital expenditure were calculated based on estimating the expenditure that may be required to service those new customers by ATCO.

- For years following AA5, capital expenditure is estimated to maintain the asset base over time by matching the depreciation.

The operating expenditure assumptions are as follows:

- Operating expenditure is calculated by adjusting the output growth calculation for the forecast customer numbers under each scenario and the forecast length of mains. After 2025, the forecast length of mains remains at the same value as 2024.

# Appendix 7 Development Rebate Scheme

ATCO's revised proposal in response to the ERA's draft decision included amendments to its proposed development rebate scheme (section 7.5 of the access arrangement). ATCO's revised amendments are as follows.

**7.5 Development Rebate Scheme**

a) An Extension is eligible for the development rebate scheme where:

i) the Extension provides reticulated gas to a new development or an existing development not serviced with reticulated gas;

ii) the Extension forms part of the Covered Pipeline and is accordingly covered by this Access Arrangement (either by way of decision by the ERA under paragraph 7.1 or by operation of paragraph 7.2);

iii) the Extension has been funded in whole or part by a third party to a value in excess of $50,000; and

iv) under an agreement with ATCO Gas Australia the third party is entitled to a rebate of a Rebate Amount when ~~determined~~estimated in accordance with paragraph 7.5(b).

b) When an End User connects to an Extension eligible for the development rebate scheme, ATCO Gas Australia will ~~determine~~estimate an amount that would be Conforming Capital Expenditure in relation to that connection as if the expenditure for the connection were incurred by ATCO Gas Australia at that time ("Rebate Amount").

c) The total value of Rebate Amounts determined for each Extension and paid to the third party will not exceed the amount funded by the third party for the Extension.

d) In accordance with paragraphs 7.1 and 7.2, an Extension eligible for the development rebate scheme under this paragraph 7.5 will not affect Reference Tariffs during the Current Access Arrangement Period.

e) An Extension eligible for the development rebate scheme under this paragraph 7.5 will affect Reference Tariffs during the next and following Access Arrangement Periods in order for ATCO Gas Australia to earn revenue referable to Development Rebate Scheme Costs related to Rebate Amounts and operating expenditure related to the Extension.

f) The Development Rebate Scheme Costs will only be recoverable through Reference Tariffs during the next and following Access Arrangement Periods if approved by the Authority when it considers the Access Arrangement revision proposal submitted on the Review Submission Date next occurring after the Rebate Amounts are paid to the third party.

g) For the purposes of paragraph (e), the Authority will determine:

i) if the Rebate Amount would be consistent with Conforming Capital Expenditure in relation to the relevant connection as if the expenditure for the connection were incurred by ATCO Gas Australia at the time of the connection;

ii) if the operating expenditure related to the Extension is Conforming Operating Expenditure;

iii) a time value of money adjustment to account for the timing difference between paying the Rebate Amount to the third party and the recovery of these amounts through Reference Tariffs; and

iv) the Development Rebate Scheme Costs.

h) For the avoidance of doubt, Reference Tariffs during the next and following Access Arrangement Periods will not be affected by Development Rebate Scheme Costs for an Extension that has been funded in whole or part by a third party that are not related to Rebate Amounts approved by the Authority.

ATCO has also revised the fixed principle (section 11.5[745] of the access arrangement) associated with the proposed development rebate scheme.

### 11.5 The following principle applies for the period described

The inclusion of Development Rebate Scheme Costs related to Rebate Amounts approved by the Authority under paragraph 7.5(~~e~~f) in Total Revenue in respect of the AGA GDS for the period or periods ending when those Rebate Amounts are fully depreciated.

[745] Previously section 11.4 in the access arrangement.