



**Economic Regulation Authority**

# Draft decision on revisions to the access arrangement for the Goldfields Gas Pipeline

Attachment 4: Regulatory capital base

25 July 2024

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## Note

This attachment forms part of the ERA's draft decision on proposed revisions to the access arrangement for the Goldfields Gas Pipeline. It should be read in conjunction with all other parts of the draft decision, which is comprised of the following document and attachments:

Draft decision on revisions to the access arrangement for the Goldfields Gas Pipeline – Overview, 25 July 2024

- Attachment 1: Access arrangement and services
- Attachment 2: Demand
- Attachment 3: Revenue and tariffs
- Attachment 4: Regulatory capital base (this document)
- Attachment 5: Operating expenditure
- Attachment 6: Depreciation
- Attachment 7: Return on capital, taxation, incentives
- Attachment 8: Other access arrangement provisions
- Attachment 9: Service terms and conditions

## Attachment 4. Summary

GGT's capital expenditure covers the investment needed to ensure safe, secure, and reliable operation of the GGP.

GGT's proposed capital expenditure for AA4 is \$70.2 million, which is significantly higher than both its AA4 forecast (\$17.6 million) and the ERA's AA4 final decision (\$7.5 million). GGT has included actual expenditure up to 2022 and forecast expenditure for 2023 and 2024 as actual expenditure was not available at the time of GGT's submission to the ERA. The 2024 expenditure will not be finalised before the ERA's draft or final decisions and any difference between forecast and actual capital expenditure will be assessed at the next review.

GGT stated that the following factors led to the AA4 forecasting inaccuracy:

- **Exclusion of key expenditure categories:** The increase in expenditure, relative to the forecast, was primarily because entire categories of spend were not anticipated and not included in the forecast. This included all information technology and operational technology costs, all cyber security expenditure, costs to maintain the physical security of the pipeline and shared corporate costs (such as office fit outs and APA wide programs of work).
- **Scope uncertainty:** While equipment failures (which put reliability at risk) were known by GGT when the AA4 forecast was prepared, investigations into the cause of these issues had not yet been completed.
- **Supplier cost pressures:** Global and local supply chain constraints have increased the cost of specialised equipment, support, and labour, particularly in the remote areas in which the GGP operates. As a result, there has been a step change in the cost to undertake works across the GGP.

The ERA has determined that GGT's conforming AA4 capital expenditure needs to be adjusted:

- GGT's proposed stay in business conforming capital expenditure for AA4 is reasonable, except for some over allocations of stay in business expenditure to the covered pipeline.
- GGT states that the omission of \$30.4 million shared capital expenditure from its AA4 proposal was an oversight. However, the ERA is of the view that these costs should have been accounted for as part of the AA4 operating costs.

For AA4 capital expenditure, the ERA's draft decision is to allow \$32.3 million to be added to the capital base as conforming capital expenditure, compared with GGT's proposal of \$70.2 million.

AA5 forecast capital expenditure covers the investment needed to ensure safe, secure, and reliable operation of the GGP. GGT has proposed to invest a total of \$62.9 million for replacement and stay in business programs, information technology and operational technology, and security of critical infrastructure programs. GGT's proposed capital expenditure for AA5 is 11 per cent lower than the actual estimated capital expenditure for AA4 (\$70.2 million).

GGT's proposed capital expenditure for AA5 includes major asset replacement and maintenance programs, as well as a significant in-line inspection program that is scheduled to occur in 2025. Stay in business investments make up 75 per cent of the total forecast capital expenditure for the 2025 to 2029 period. Information and operational technology, cyber costs and property related costs comprise the balance.

GGT has stated that the age of the pipeline was a key driver for increased capital expenditure, as many of its mechanical, electrical, and control components are nearing the end of their useful life. Additionally, investment requirements are growing due to the increasingly complex external environment. Over the last five years GGT has seen significant cost increases and supply shortages (particularly in remote areas), greater focus on emissions reductions and heightened focus on cyber and physical security.

The ERA has determined that GGT's AA5 capital expenditure needs to be reduced.

- GGT's proposed stay in business conforming capital expenditure for AA4 is reasonable, except for some over allocations of stay in business expenditure to the covered pipeline.
- GGT proposed \$15.9 million as shared AA5 capital expenditure. For the reasons explained above for AA4 capital expenditure, the ERA considers that this amount is not conforming capital expenditure.

For AA5 capital expenditure, the ERA's draft decision is to approve \$44.3 million, compared with GGT's proposal of \$62.9 million.

### **Summary of required amendments**

- 4.1 GGT must amend its access arrangement information to revise its AA4 forecast capital expenditure to \$32.3 million (\$ real as at 31 December 2023), consistent with Table 4.6 of Draft Decision Attachment 4.
- 4.2 GGT should update its forecast AA4 capital costs with the latest labour cost escalation update available and provide the ability for the ERA to update this its final decision model.
- 4.3 GGT must amend its access arrangement information to revise its AA5 forecast capital expenditure to \$44.3 million (\$ real as at 31 December 2023), consistent with Table 4.11 of Draft Decision Attachment 4.
- 4.4 GGT should update its AA5 capital costs with the latest labour cost escalation update available and provide the ability for the ERA to update this in its final decision model.

## Regulatory requirements

1. Under the regulatory framework, these definitions apply:<sup>1</sup>

**capital base**, in relation to a pipeline, means the capital value to be attributed, in accordance with [Part 4 of the National Gas Rules], to pipeline assets.

**capital expenditure** means costs and expenditure of a capital nature incurred to provide, or in providing, pipeline services.

**conforming capital expenditure** means capital expenditure that complies with the new capital expenditure criteria.

**depreciation** means depreciation of the capital base.

**new capital expenditure criteria** mean the criteria stated in rule 79.

**non-conforming capital expenditure** means capital expenditure that does not comply with the new capital expenditure criteria.

2. The National Gas Rules (NGR) require the following capital base information to be included in the service provider's Access Arrangement Information (AAI).<sup>2</sup> AAI is information that is reasonably necessary for users (including prospective users) to understand the background to the access arrangement; and the basis and derivation of the various elements of the access arrangement.

- Information on how the capital base is arrived at; and if the access arrangement period commences at the end of an earlier access arrangement period, information that demonstrates how the capital based increased or decreased over the previous access arrangement period (rule 72(1)(b)).
- Information on the projected capital base over the access arrangement period, including a forecast of conforming capital expenditure and a forecast of depreciation (rule 72(1)(c)).

3. Rules 77 to 86 of the NGR set out various provisions for the capital base, which cover:

- How the opening capital base is to be determined (rule 77):
  - Where an access arrangement period follows directly on from an earlier access arrangement period, the opening capital base for the later access arrangement period is to be calculated as follows:<sup>3</sup>
    - the opening capital base at the start of the earlier access arrangement period adjusted for any differences between forecast and actual capital expenditure included in that opening capital base;
    - **plus:** conforming capital expenditure made, or to be made, during the earlier access arrangement period;
    - **plus:** any amounts to be added for capital contributions, speculative capital expenditure or the reuse of redundant assets;
    - **plus:** the value of any extensions to the pipeline;

<sup>1</sup> Extracts of the NGR that are referenced in this document are provided in Appendix 2 for information. NGR, rule 69.

<sup>2</sup> NGR, rule 72.

<sup>3</sup> NGR, rule 77(2).

- **less:** depreciation over the earlier access arrangement period;
- **less:** redundant assets identified during the earlier access arrangement period;
- **less:** the value of pipeline assets disposed of during the earlier access arrangement period.
- How the projected capital base is to be determined (rule 78):
  - The project capital base for an access arrangement period is to be determined as: the opening capital base; **plus** forecast conforming capital expenditure for the period; **less** forecast depreciation for the period and the forecast value of pipeline assets to be disposed of over the course of the period.
- The criteria for new capital expenditure (rule 79)<sup>4</sup>:
  - Conforming 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 costs of providing services in a manner consistent with the achievement of the national gas objective; and is justifiable on one of the grounds stated in rule 79(2); and is properly allocated in accordance with rule 79(6).
  - Rule 79(2) states that capital expenditure is justifiable if it meets one or more of the following criteria:
    - (a) the overall economic value of the expenditure is positive subject to subrule (3); 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
      - (v) to contribute to meeting emissions reduction targets through the supply of services; 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).
  - Rule 79(3) states that in deciding whether the overall economic value of capital expenditure is positive, consideration is to be given to the sum of:

<sup>4</sup> The criteria for new capital expenditure changed in February 2024. Transitional provisions in the NGR (see Schedule 1 Part 20, rule 103) allow the ERA to apply either the old (pre 1 February 2024) or new (post 1 February 2024) expenditure rules when assessing GGT's access arrangement for AA5. The new expenditure rules have been provided in this section.



- (a) the economic value, other than of changes to Australia's greenhouse gas emissions, directly accruing to the service provider, producers, users and end users; and
  - (b) the economic value of changes to Australia's greenhouse gas emissions, whether or not that value accrues (directly or indirectly) to the service provider, producers, users or end users.
- Rule 79(6) states that conforming capital expenditure must be for expenditure that is allocated between reference services; other services provided by means of the covered pipeline; and other services provided by means of uncovered parts (if any) of the pipeline.<sup>5</sup>
- Provisions for the regulator to make an advanced determination about future capital expenditure (rule 80).
  - An express provision that allows a service provider to make capital expenditure during an access arrangement period that is, in whole or in part, non-conforming capital expenditure (rule 81).
  - Provisions for users to make capital contributions towards a service provider's capital expenditure (rule 82).
  - Provisions for the service provider to be able to recover non-conforming capital expenditure by means of a surcharge (rule 83).
  - The establishment of a speculative capital expenditure account (rule 84):
    - To the extent that non-conforming capital expenditure is not recovered via a surcharge on users, the non-conforming expenditure may be added to a notional fund (the "speculative capital expenditure account") until it is determined that it complies with the criteria for conforming capital expenditure.
  - Provisions for capital redundancy (rule 85).
  - Provisions for the reuse of redundant assets (rule 86).
4. Further to the provisions covering the capital base, rule 71 of the NGR sets out the considerations that the regulator may and should have regard to when evaluating whether capital expenditure satisfies the governing criteria for new capital expenditure. The regulator:
- May, without embarking on a detailed investigation, infer compliance from the operation of an incentive mechanism or on any other basis that is considered appropriate.
  - Must consider and give appropriate weight to, submissions and comments received in response to an invitation for submissions on whether a service provider's access arrangement proposal should be approved.

<sup>5</sup> The allocation of capital expenditure to these categories of services must be done in accordance with rule 93.

## GGT proposal

### Actual (AA4) capital expenditure

5. GGT's actual estimated capital expenditure for AA4 is \$70.2 million, which is significantly higher than both the AA4 proposal (\$17.6 million) and the ERA's AA4 final decision (\$7.5 million).<sup>6, 7</sup>
6. GGT has highlighted the following factors that have driven expenditures above the AA4 forecasts.<sup>8</sup>
  - Exclusion of key expenditure categories: The increase in expenditure, relative to the forecast, was primarily because entire categories of spend were not anticipated and were not included in the forecast. This included all Information Technology and Operational Technology (IT/OT) costs, all cyber security expenditure, costs to maintain the physical security of the pipeline and shared corporate costs (such as office fit outs and APA-wide programs of work).
  - Scope uncertainty: The forecast was also impacted by uncertainty in the scope of key programs. While equipment failures (which put reliability at risk) were known to GGT when the AA4 forecast was prepared, investigations into the cause of these issues had not yet been completed.
  - Supplier cost pressures: There were unforeseen significant increases in post-COVID input prices. Global and local supply chain constraints have increased the cost of specialised equipment, support, and labour, particularly in the remote areas in which the GGP operates. As a result, there has been a step change in the cost to undertake works across the GGP.
7. GGT acknowledged that during the AA4 review process, the ERA raised concerns regarding the accuracy of GGT's capital expenditure forecasts and forecasting approach. GGT has further acknowledged that its capital expenditure forecasting approach needs to improve and has submitted that the lessons learnt from the AA4 review process have been incorporated into building the forecast for AA5.

### Forecast (AA5) capital expenditure

8. AA5 forecast capital expenditure covers the investment needed to ensure safe, secure, and reliable operation of the GGP. GGT has proposed to invest a total of \$62.9 million for replacement and stay in business programs, IT/OT, and security of critical infrastructure programs.<sup>9</sup>
9. GGT's proposed capital expenditure for AA5 includes major asset replacement and maintenance programs, as well as a significant inline inspection program that is scheduled to occur in 2025. "Stay in business" investments make up 75 per cent of the total forecast capital expenditure for the AA5 period. The balance is related to an allocation of APA Group's (the parent entity of GGT) corporate costs, such as IT/OT, cyber costs, property and national programs.

<sup>6</sup> GGT corrected and updated its original proposal (Information Request EMCa 32).

<sup>7</sup> GGT, *Goldfields Gas Pipeline AA5 – Attachment 10.1: Capital Expenditure Overview*, 1 January 2024, p. 11.

<sup>8</sup> GGT, *Goldfields Gas Pipeline AA5 – Attachment 10.1: Capital Expenditure Overview*, 1 January 2024, p. 12.

<sup>9</sup> GGT corrected and updated its original proposal (Information Request EMCa 11).

10. GGT stated that a key internal driver for increased capital expenditure is that the GGP is now entering a new lifecycle phase as it approaches 30 years of age and many of its mechanical, electrical, and control components are nearing the end of their useful life. Additionally, investment requirements are growing due to the increasingly complex external environment.
11. Additionally, over the last five years GGT submits it has seen significant cost increases and supply shortages (particularly in remote areas), greater focus on emissions reductions and heightened focus on cyber and physical security.<sup>10</sup>

## Revisions to original proposals

12. In response to an information request on AA4 capex, GGT identified four projects where a proportion of costs (\$2.97 million) were incorrectly allocated to the covered pipeline.
13. GGT also identified that it had not applied the cost allocations correctly over the 2020 to 2022 period. This resulted in the under allocation of \$9.7 million of capital expenditure to the covered pipeline. GGT also noted an error in the AA5 capital expenditure proposal, where two projects were included which were not part of the covered GGP. GGT noted that these were erroneously retained as the similar program name led to them being incorrectly grouped with end of equipment life items. This resulted in a reduction in the AA5 capital expenditure by \$6 million.
14. This draft decision has used GGT's updated AA4 and AA5 capital expenditures to undertake its assessment.

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<sup>10</sup> GGT, *Goldfields Gas Pipeline AA5 - Proposal Overview*, 1 January 2024, p. 63.

## Submissions

15. There were no submissions for matters related to the regulatory capital base.

## Draft decision

16. On 1 February 2024, the NGR were amended to align with a new explicit emissions reduction objective in the national gas objective. Given that the GGT proposal had already been lodged and the ERA was well into its review, the NGR gave discretion to the ERA to adopt either the amended expenditure assessment rules or maintain the old expenditure assessment rules. The ERA has decided to apply the new expenditure rule for capital expenditure that was incurred or is forecast to be incurred after 1 February 2024 and the old expenditure rule for capital expenditure that was incurred prior to 1 February 2024. Forecast operating expenditure for the next access arrangement period will be assessed based on the new expenditure rules (see Attachment 5).

## GGT's governance and management framework

17. The ERA appointed Energy Market Consulting associates as its technical consultant and tasked them with reviewing GGT's governance and management framework. EMCa concluded that GGT has made improvements to address systemic weaknesses in its investment governance framework as highlighted in the ERA's AA4 final decision. For example, GGT has introduced a "Project Excellence Team" for its stay in business capital expenditure projects and programs, which should progressively help consolidate improvements in each of these areas.
18. GGT continues to apply a largely qualitative approach to benefits identification and to risk management. It applies deterministic criteria to establish the scope and timing of the majority of its programs. This is common practice within the gas network industry.
19. GGT together with its parent organisation APA Group has demonstrated to EMCa's satisfaction that it has an adequate governance framework for its day-to-day operations.
20. EMCa considers that quality assurance in GGT's regulatory submission remains poor. GGT presents the significant difference between its forecast and actual AA4 expenditure as being largely due to omissions as well as judgments formed on information available at the time of its AA4 access arrangement submission which proved to be flawed.

## Cost allocation

21. As the GGP has both covered and uncovered capacity in the pipeline, a cost allocation principle needs to be applied to share the underlying GGT costs between the covered and uncovered portions.
22. GGT proposes that where capital expenditure is directly related to the covered or uncovered portion of the pipeline, such expenditures will be directly allocated to the covered and uncovered portion accordingly.<sup>11</sup>

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<sup>11</sup> GGT, GGP 2025-29 AA proposal, Cost Allocation Method, Jan 2024, p. 21.

23. For the remaining expenditure, which is utilised by the covered and uncovered portion of the pipeline, allocation of the capital expenditure to each of the portions has been carried out by GGT in the following manner:<sup>12</sup>
- **Compressor related capital expenditure:** where there are both covered and uncovered compressor units installed at a compressor station, the allocation of capital expenditure to the covered pipeline is the ratio of (a) the number of covered pipeline compressor units at that compressor station to (b) the total number of compressor units (covered and uncovered) at the station.
  - **Non-compressor related capital expenditure:** capital expenditures are allocated to the covered pipeline in the ratio of (a) TJ/day of covered contracted capacity to (b) TJ/day of total contracted capacity provided using the GGP (i.e. the covered capacity plus the uncovered capacity). The exception to the above is that if the underlying cost is based on distance (i.e. in line inspection costs), then TJ x km/day is used instead of TJ/d.<sup>13</sup>
24. In its AA5 proposal, GGT has proposed a change to the capacity allocators (both TJ/d and TJ x km/day) due to the incorporation of the NGI as the above capacities increase in the GGP due to NGI. The cost allocation factors proposed by GGT both with and without the NGI are shown in Table 4.1 and Table 4.2.
25. The ERA has considered GGT's proposal for the change of cost allocation factors due to the incorporation of the NGI capacity. The ERA notes that cost allocators only apply to GGP costs and are based on the drivers of those GGP costs (for example, an additional compressor on the GGP, which would increase the pipeline costs and capacity, would result in an increase of shared compressor related capital expenditure to the covered pipeline). The NGI costs are borne by NGI and as per GGT's proposal, the incorporation of the NGI has no meaningful impact on GGP costs. As the GGP costs have not changed due to the incorporation of the NGI capacity, there is no underlying driver to base a GGP cost allocation change on and as such, the ERA's view is that there should be no change to the cost allocation factors. The ERA's decision is to keep the cost allocation percentages the same as pre-NGI (Yarraloola only cost allocation factors in Table 4.1 and Table 4.2).
26. Separately, the ERA notes that the TJ/d and TJ x km/d cost allocators have not been applied consistently between AA4 and AA5 in GGP's proposal. In the draft decision, the ERA has changed some of GGT's cost allocation factors to ensure the cost allocation factors are applied consistently.<sup>14</sup>
27. Due to the incorporation of the NGI, GGT proposed pre-NGI (2020 to 2022) and post-NGI (2023 onwards) cost allocators for the capital expenditure cost allocation. Table 4.1 and Table 4.2 set out the cost allocators proposed by GGT. For this draft decision, the ERA has elected to use the pre-NGI cost allocators.

<sup>12</sup> GGT, GGP 2025-29 AA proposal, Cost Allocation Method, Jan 2024, p. 21.

<sup>13</sup> GGP 2025-2029 AA Proposal, ERA, EMCa & GGT/APA meeting, 25 March 2024, slide 71.

<sup>14</sup> ERA draft decision capital expenditure model.

**Table 4.1: GGT capacity based cost allocators, ratio of contracted covered capacity to total capacity (TJ/day)**

| Ratio of contracted covered capacity to total capacity                     | TJ/day       | %           |
|--|--------------|-------------|
| <b>Post-NGI (Yarraloola and Northern Goldfields Interconnect capacity)</b> |              |             |
| Covered capacity   | 141.5        | 61%         |
| Uncovered capacity   | 90.7         | 39%         |
| <b>Total capacity</b>  | <b>232.2</b> | <b>100%</b> |
| <b>Pre-NGI (Yarraloola only capacity)</b>                                  |              |             |
| Covered capacity   | 110.2        | 55%         |
| Uncovered capacity   | 90.7         | 45%         |
| <b>Total capacity</b>  | <b>200.8</b> | <b>100%</b> |

Source: GGT, Attachment 6.2, Cost Allocation Model, Jan 2024

**Table 4.2: GGT distance based cost allocators, ratio of contracted covered capacity to total capacity (TJ x km/day)**

| Ratio of contracted covered capacity to total capacity                     | TJ x km/day      | %           |
|--|------------------|-------------|
| <b>Post-NGI (Yarraloola and Northern Goldfields Interconnect capacity)</b> |                  |             |
| Covered capacity   | 117,607.3        | 70%         |
| Uncovered capacity   | 49,622.3         | 30%         |
| <b>Total capacity</b>  | <b>167,229.7</b> | <b>100%</b> |
| <b>Pre-NGI (Yarraloola only capacity)</b>                                  |                  |             |
| Covered capacity   | 112,381.1        | 69%         |
| Uncovered capacity   | 49,622.3         | 31%         |
| <b>Total capacity</b>  | <b>162,003.4</b> | <b>100%</b> |

Source: GGT, Attachment 6.2, Cost Allocation Model, Jan 2024

## Opening capital base

28. GGT proposed an opening capital base for AA5 of \$441.65 million at 1 January 2025. Table 4.3 details GGT's opening capital base calculation.

**Table 4.3: GGT's closing capital base for AA4 (\$ million real at 31 December 2023)**

|   | 2019   | 2020   | 2021   | 2022   | 2023   | 2024   |
|---|--------|--------|--------|--------|--------|--------|
| Opening capital base 2019 before adjustment   | 457.44 |        |        |        |        |        |
| Benefit from the difference between the estimated and actual 2019 capital expenditure | (0.06) |        |        |        |        |        |
| <b>Opening capital base</b>   | 457.38 | 445.24 | 441.79 | 437.83 | 435.55 | 435.91 |
| <i>Plus:</i> Capital expenditure  | 1.53   | 9.40   | 10.03  | 11.75  | 14.41  | 18.57  |
| <i>Less:</i> Depreciation   | 13.67  | 12.85  | 13.99  | 14.03  | 14.05  | 12.83  |
| <b>Closing capital base</b>   | 445.24 | 441.79 | 437.83 | 435.55 | 435.91 | 441.65 |

Source: GGP Tariff Model

### AA4 capital expenditure

29. Rule 79 of the NGR sets out the criteria of conforming capital expenditure. Under 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 in a manner consistent with the achievement of the national gas objective. Under rule 79(2)(a) to (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 because 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.
    - Maintain the service provider's capacity to meet levels of demand for services existing at the time the capital expenditure is incurred.
    - Contribute to meeting emissions reduction targets through the supply of services (applies to expenditure incurred after 1 February 2024).
30. GGT submits that all the past capital expenditure satisfies NGR 79(1)(a) and is justifiable on the grounds stated in NGR 79(2).
31. For the AA4 period, GGT initially forecast \$17.5 million in capital expenditure in its AA4 proposal, while the ERA accepted a forecast of \$7.5 million. In its AA5 proposal, GGT proposed \$64.1 million as its AA4 actual/estimated capital expenditure with GGT's reasons for the significant increase described in paragraph 6 above. Subsequently during this AA5 review process, GGT advised that it had made errors



in its proposal in allocating expenditure to the covered pipeline and provided a revised AA4 capital expenditure of \$70.2 million. The revised AA4 capital expenditure which the ERA will base its draft decision on is \$62.7 million higher than the ERA's AA4 final decision. All major categories of expenditure are materially higher than the ERA's AA4 final decision.

**Table 4.4: GGT proposed actual/estimated AA4 capital expenditure (\$ million real at 31 December 2023)**

| Capital expenditure by category             | 2020        | 2021        | 2022        | 2023        | 2024        | Total       |
|---|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Stay in business</b>                     |             |             |             |             |             |             |
| Integrity                                   | 0.1         | 0.0         | 0.0         | 0.0         | 0.4         | 0.5         |
| Rotating maintenance                        | 0.0         | 0.4         | 1.7         | 0.1         | 0.4         | 2.5         |
| End of equipment life                       | 2.2         | 0.1         | 0.2         | 1.5         | 3.5         | 7.5         |
| Net zero                                    | 0.0         | 0.0         | 0.0         | 0.0         | 0.0         | 0.0         |
| Physical security                           | 0.0         | 0.0         | 0.0         | 0.0         | 1.5         | 1.5         |
| Hazardous area / compliance                 | 0.1         | 0.0         | 0.5         | 0.1         | 0.5         | 1.1         |
| Reliability                                 | 4.0         | 8.5         | 1.9         | 2.9         | 2.7         | 19.9        |
| Other                                       | 0.7         | 1.2         | 1.4         | 1.1         | 0.2         | 4.7         |
| Buried pipework                             | 0.0         | 0.0         | 0.3         | 0.6         | 1.0         | 2.0         |
| <b>Stay in business sub-total</b>           | <b>7.1</b>  | <b>10.2</b> | <b>5.9</b>  | <b>6.3</b>  | <b>10.3</b> | <b>39.8</b> |
| <b>Shared capital expenditure</b>           |             |             |             |             |             |             |
| IT/OT                                       | 2.3         | 2.0         | 4.1         | 4.9         | 4.9         | 18.0        |
| Cyber                                       | 0.0         | 0.4         | 0.5         | 1.6         | 1.5         | 4.0         |
| Other shared corporate                      | 0.9         | 1.3         | 3.3         | 1.4         | 1.4         | 8.3         |
| <b>Shared capital expenditure sub-total</b> | <b>3.3</b>  | <b>3.7</b>  | <b>7.9</b>  | <b>7.9</b>  | <b>7.8</b>  | <b>30.4</b> |
| <b>Total AA4 capital expenditure</b>        | <b>10.4</b> | <b>13.9</b> | <b>13.7</b> | <b>14.2</b> | <b>18.1</b> | <b>70.2</b> |

Source: GGT, IR EMCa 32.

32. GGT states that the increase in expenditure, relative to the forecast, was primarily because entire categories of spend were not anticipated or included in the forecast. This included all IT/OT costs, cyber security expenditure to comply with the Security of Critical Infrastructure Act (SOCi Act), as well as costs to maintain the physical security of the pipeline. Over AA4, this expenditure cost \$30.4 million or just under half of the projected AA4 capital expenditure.<sup>15</sup>
33. The second reason for forecasting inaccuracy provided by GGT was due to uncertainty in the scope of key programs. For instance, while equipment failures (which put reliability at risk) were known by GGT when the AA4 forecast was

<sup>15</sup> GGT, GGP AA5 Proposal Overview Public, 1 January 2024, p. 64.

prepared, investigations into the cause of these had not yet been completed. A provisional forecast of \$4.9 million was included to replace the Gas Engine Alternators (GEA) at Yarraloola and Ilgarari.

34. However, GGT notes that the works required at Yarraloola were more extensive than anticipated, requiring a new fuel gas skid and the design and fabrication of a new enclosure and battery room. GGT expects that the covered component of reliability improvement works at Yarraloola over AA4 will cost about \$8.7 million.
35. GGT's third reason for forecasting inaccuracy was significant increase in post-COVID market prices. This is partly due to global and local supply chain constraints and, where available, higher costs for specialised equipment, support and labour, particularly in remote areas in which the GGP operates. GGT noted that these cost pressures are not unique to the GGP:<sup>16</sup>
  - The Western Australian Wage Price Index is currently the highest in the nation, sitting at 4.6 per cent (Q3 2023).
  - The Australian Energy Market Operator has found that the cost to undertake transmission projects has increased by about 30 per cent in real terms between the 2022 and 2024 Integrated System Plans.
  - Ai Group's price and wages indicators indicate that input prices and wages have continually increased since just after the start of AA4 (mid 2020) and remain substantially elevated.
36. Additionally, GGT noted that cost pressures have been particularly high in the energy and infrastructure sectors. There have been global increases in the level of energy investment to mitigate the impact of global energy supply chain shocks stemming from the war in Ukraine. There has also been a significant increase in the Australian infrastructure pipeline. ANZ's major projects pipeline, highlights the increase in projects from about 2021/22. Together these factors have put pressure on the skilled workforce and supporting global supply chains resulting in higher input-prices.
37. GGT also notes that it is operating in a rapidly changing environment, particularly regarding the national regulatory frameworks (emissions, cyber security etc.) governing the sector. These changes make operating assumptions increasingly volatile and in turn increase forecasting inaccuracy.

## ***ERA's consideration***

### *Stay in business capital expenditure*

#### ***Integrity work***

38. The ERA's AA4 final decision allowance for this work was \$0.3 million. The driver for the work on inspecting the integrity of the pipelines was compliance with AS/NZS 2885.<sup>17</sup> GGT expects to incur \$0.5 million by the end of AA4 on ensuring the integrity of the pipeline.
39. EMCa noted that GGT's inspection techniques are consistent with good industry practice. Given the above and APA's experience with pipeline inspections and the

<sup>16</sup> GGT, GGP AA5 Proposal Overview Public, 1 January 2024, p. 64.

<sup>17</sup> EMCa, Technical report, July 2024, p. 28.

relatively high frequency with which it carries out the work, the ERA considers that the AA4 expenditure is at an efficient level.

### ***Rotating maintenance work***

40. The AA4 final decision allowance for rotating maintenance work in the AA4 period was \$0.2 million, with GGT's AA4 capital expenditure initially reported as \$1.7 million and then revised to \$2.1 million following an allocation correction.<sup>18</sup> The corrected capital expenditure was incurred as follows:<sup>19</sup>
- \$1.5 million for overhauling the Wiluna turbine
  - \$0.4 million for overhauling the Yarraloola U1 [REDACTED] engine
  - \$0.2 million for Ilgarari compressor overhaul.
41. GGT advises that the main driver of the variance was the overhaul of the Wiluna turbine which was undertaken post failure reviews in 2021 and 2022.
42. EMCa is satisfied that the response to the compressor failures was prudent and that the cost incurred is likely to have been efficiently incurred. GGT identifies similar issues at Paraburdoo and Ilgarari, and EMCa was satisfied with the response.
43. The ERA considers that the expenditure satisfies the capital expenditure criteria.

### ***End of Equipment Life***

44. The AA4 final decision allowance for End of Equipment Life (EoEL) work in the AA4 period was \$2.5 million, with GGT's actual expenditure revised to \$7.5 million following an allocation correction.<sup>20</sup> The corrected covered expenditure was incurred through five projects/programs as follows:<sup>21</sup>
- EoEL Program: \$5.0 million
  - Wiluna RTU replacement: \$1.3 million
  - Yarraloola Station RTU Upgrade: \$0.9 million
  - Wiluna cathodic protection: \$0.2 million
  - Other: \$0.2 million.
45. EMCa reviewed the expenditure and was unable to reconcile GGT's stated AA4 (allocation-corrected) expenditure for the covered pipeline. EMCa found that work has been undertaken at a number of receipt and delivery points and based on a review of the GGP schematic published on the APA website, only the Newman and Yamima delivery points are part of the scheme pipeline. Where the delivery points are not specified as either scheme or non-scheme, EMCa assumed that they are shipper funded in accordance with the standard terms and conditions of the Gas Transportation Agreement and are accordingly not part of the scheme pipeline for tariff purposes.

<sup>18</sup> GGT's response to information request EMCa32, Tables 1 and 2.

<sup>19</sup> EMCa32 -SIB Projects spreadsheet - Updated 29 April - Corrected allocators – confidential.

<sup>20</sup> See revisions to original proposal, p. 5.

<sup>21</sup> GGT response to EMCa information request IR32.

46. Based on the identification of covered assets, \$5.7 million in total satisfies the capital expenditure criteria applied to the covered pipeline, representing an adjustment of -\$1.8 million.
47. The ERA is satisfied that the above adjustment as well as the Wiluna expenditure and other EoEL work appears reasonable.

### **Physical security and natural hazards program**

48. GGT has proposed to incur [REDACTED], being a new program not included in the AA4 final decision allowance.<sup>22</sup>
49. A new obligation arose within the AA4 period in relation to security of its assets. The GGP is classified as critical infrastructure and is subject to the amended requirements under the SOCI Act. As required under the legislation, the responsible entity, APA, has developed a Critical Infrastructure Risk Management Plan (CIRMP), part of which relates to physical security of its assets.<sup>23</sup>
50. The CIRMP require that responsible entities:<sup>24</sup>
- Identify the physical critical components of the critical infrastructure asset.
  - As far as it is reasonably practicable to do so, minimise or eliminate a material risk, and mitigate a relevant impact, of:
    - A physical security hazard on a physical critical component.
    - A natural hazard on the Critical Infrastructure asset.
  - Respond to incidents where unauthorised access to a physical critical component occurs.
  - Control access to physical critical components, including restricting access to only those individuals who are critical workers or accompanied visitors.
  - Test that security arrangements for the asset are effective and appropriate to detect, delay, deter, respond to and recover from a breach in the arrangements.
51. EMCa is satisfied that GGT was subject to a new obligation (under the amended SoCI Act) during the AA4 period and that it could not reasonably foresee the extent of those obligations when its AA4 proposal was submitted. EMCa therefore considers it reasonable that there was a variation to its forecast AA4 capital expenditure in which GGT was required to respond.
52. EMCa notes that APA's assessment of site and risk assessments was consistent with good practice.
53. APA considered three options:<sup>25</sup>
- [REDACTED]

<sup>22</sup> GGT response to EMCa information request IR32.

<sup>23</sup> [REDACTED]

<sup>24</sup> CISC, Guidance for the Critical Infrastructure Risk Management Program, p. 12.

<sup>25</sup> GGP-AA5-Attachment 10.14 SIB business case - Physical Security-1 January 2023-Confidential.

- [REDACTED]
  - [REDACTED]
54. GGT has provided an assessment of the options against four selection criteria, which include risk-based measures and cost efficiency. [REDACTED] is preferred by APA, based on the cost efficiency test.
55. EMCa considers [REDACTED] to be the prudent selection of the three options considered and sees no reasonable means of reducing the proposed scope of work at each of the covered sites without compromising [REDACTED]
56. The ERA considers that the physical security and natural hazards program expenditure satisfies the capital expenditure criteria.

### ***Hazardous area compliance program***

57. GGT forecast \$0.7 million in its AA4 submission, but due to scope uncertainty, the ERA's AA4 final decision included \$0.2 million. GGT's actual expenditure is reported as \$1.1 million.
58. APA (for GGT) is required to periodically undertake Electrical Equipment Hazardous Area inspections and to remediate hazards in accordance with AS/NZS 60079 Explosive atmospheres and AS/NZS 3000:2018 Electrical Installations (Wiring Rules).
59. APA/GGT reported that it engaged a contractor to undertake the inspections at Paraburdoo and Ilgarari compressor stations. Seventy-five defects (non-compliances) were identified.
60. GGT provided two relevant planning reports, which summarise the defects, include rectification reports, deliverables lists, and the scopes of work. It also provided a cost spreadsheet that shows the cost estimates for each project stage, which EMCa considered reasonable.
61. The ERA has reviewed all relevant information and considers that the expected costs are reasonable.

### ***AA4 reliability program***

62. GGT's proposed AA4 reliability capital expenditure is \$19.9 million versus the ERA's AA4 final decision allowance of \$1.6 million.<sup>26</sup>
63. The major driver of the increase in capital expenditure required for this program was five unplanned AA4 reliability projects, which are in addition to the Yarraloola GEA replacement project:<sup>27</sup>
- Yarraloola GEA replacement (\$8.7 million)
  - Wiluna pre-NGI project (\$8.6 million)

<sup>26</sup> EMCa 32. Increased after correction by GGT from the original (uncorrected) amount of \$13.6 million.

<sup>27</sup> GGT response to EMCa information request IR32, Table 4.

- Yarraloola gas analysis (\$0.9 million)
  - Yarraloola air systems upgrade (\$0.5 million)
  - Load banks (\$0.4 million)
  - Other (\$0.8 million).
64. EMCa reviewed and considered the work identified by GGT at Yarraloola was likely to be required based on (i) the information that has been provided, (ii) the age of the plant and equipment, (iii) its acceptance of APA/GGT's cost estimation process, (iv) APA's extensive knowledge of GEA operations and maintenance, and (v) the qualitative information provided by GGT regarding the cost of services post-COVID. EMCa also considers that the capital expenditure is conforming under the capital expenditure criteria.
65. The Wiluna pre-NGI project was introduced during AA4 as an unplanned response to a change in the amount of available spare capacity between the actual and contracted demand on the GGP. EMCa considers that GGT has provided evidence that shows the decline of available capacity, which supports the need for a prudent operator to consider options to manage the risk.<sup>28</sup> GGT considered four options and on EMCa's view, selected the prudent option.
66. GGT argues that it is reasonable to assign 100 per cent of the cost of the project to the covered pipeline. However, EMCa considers that the Wiluna pre-NGI project will provide benefit to both the covered and uncovered sections of the pipeline and hence the costs should be allocated accordingly.<sup>29</sup> This results in a reduction of \$4.3 million with the resulting reliability expenditure being \$15.6 million.
67. EMCa considered the remaining projects conforming.
68. The ERA having reviewed all relevant material is satisfied that the above adjustment as well as the remaining reliability expenditure is reasonable.

#### ***'Other' AA4 stay in business capital expenditure***

69. There are five nominated projects in the AA4 period which GGT identifies under the 'Other' label at a total cost of \$4.7 million as follows:<sup>30</sup>
- Three projects totalling \$2.9 million per the FD, as listed below:
    - Karratha maintenance base (\$1.6 million).
    - Site accommodation upgrades (\$0.4 million).
    - Miscellaneous capital (\$0.9 million) for minor capital works and purchase instrumentation, tools, etc.
  - Other (\$1.4 million) for SCADA WAN Lifecycle Project and contributions to a national asset engineering project and other small projects.
  - NGI (\$0.4 million) for costs associated with building interconnection with the NGI.

<sup>28</sup> GGT response to EMCa information request IR32.

<sup>29</sup> EMCa, GGT's 2025-29 AA technical review report, June 2024, p. 34.

<sup>30</sup> GGT response to EMCa information request IR32, Table 2.

70. The ERA AA4 final decision included \$2.8 million for the three projects. EMCa reviewed the expenditure and, noting that the increase in costs for the three projects compared to the final decision is less than 5 per cent, considered it reasonable.
71. The SCADA WAN as described by GGT, albeit briefly, is consistent with the operations of a transmission gas pipeline. EMCa considered this cost reasonable.
72. GGT argues that the cost associated with building the interconnection with the NGI conforms to the new capital expenditure criterion (i.e. covered) because it provides overall positive economic benefit. The ERA has considered these costs in light of the connection and new facility agreement between GGP and the NGI, which indicates that the cost should be borne by NGI. The ERA is therefore, of the view that these costs should not be conforming capital expenditure.
73. The ERA, based on EMCa's recommendation considers all other costs as reasonable.

### ***Buried pipework***

74. GGT has proposed a new program at a cost of \$2.0 million for AA4 to relocate buried station piping and equipment for chemicals, chemical waste storage and transfer systems at compressor stations along the GGP.<sup>31</sup> This project was not included in the AA4 final decision.
75. GGT advised that during the AA4 period there were failures and environmental incidents that led to the need to commence this program.
76. Based on the information provided, GGT could not have reasonably foreseen the failures and underground leakages. EMCa considers that GGT has demonstrated that the environmental issues needed to be investigated given the operational and environmental risks to which GGT is exposed.
77. GGT constrained the scope of work to compressor stations, which EMCa considers to be prudent. EMCa also found that the work commenced in 2021 with development work, and the pipeline work itself (i.e. bringing section of pipes above ground) commenced in 2023 and 2024 at Yarraloola, and Wiluna, with the Wiluna work forecast to extend into the AA5 period.
78. The ERA has reviewed all relevant information and considers that the expected costs are reasonable.

### ***Shared capital expenditure***

79. GGT has proposed \$30.41 million of 'shared capital expenditure' to be considered as 'conforming capital expenditure' for the purpose of determining its opening regulated asset base for AA5. GGT describes this expenditure as including "national programs and property related costs, IT/OT and cyber costs."<sup>32</sup> From examination of models that GGT provided, EMCa observed that the proposed amounts are derived from APA-incurred corporate-level expenditure, a portion of which has been allocated to the GGP covered pipeline.

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<sup>31</sup> GGT response to information request EMCa32, Table 2.

<sup>32</sup> GGP-AA5-Proposal overview, p. 72.

80. GGT did not propose any such expenditure in its AA4 proposal and states that this was “primarily because entire categories of spend were not anticipated and were not included in the forecast.” EMCa reviewed GGT’s submissions on conforming capital expenditure for AA2 and AA3 and noted there was no shared capital expenditure proposed in them either.
81. APA group applies a corporate charge to GGT for the corporate and management services that it provides through the operating costs. Over the three years of AA4 for which actual expenditure is available, this aspect of operating costs averaged \$5.9 million per year (in real \$ 2023), increased in 2022 to \$7.6 million (nominal) and was even higher in 2023 (\$13.5 million, nominal).<sup>33</sup> From GGT’s response to EMCa’s information request, EMCa found that the AA4 APA capital expenditure, that GGT proposes is shared, comprises a wide range of corporate-related amounts that includes expenditure on a range of IT systems including finance and human resources systems, leased assets and refurbishment of APA’s Brisbane office.<sup>34</sup> EMCa advised that it is inconsistent with APA’s corporate service charge to GGT, to also allocate to GGT the capital expenditure that APA incurs in providing these wide-ranging corporate services.
82. EMCa concluded that GGT’s proposal to include an allocation of APA group corporate capital expenditure as GGT conforming capital expenditure in AA4, is not reasonable.
83. The ERA has reviewed all relevant information and based on the reasoning provided above, does not approve GGT’s proposed AA4 shared capital expenditure in its draft decision. The ERA is of the view that this expenditure should have been accounted for as part of the AA4 operating costs.

### **ERA draft decision**

84. The ERA has concluded in its draft decision that \$32.3 million of GGT’s proposed AA4 capital expenditure satisfies the criteria for conforming capital expenditure set out in Rule 79 of the NGR. Table 4.5 shows GGT’s proposed AA4 capital expenditure, and the ERA’s draft decision AA4 capital expenditure.

**Table 4.5: AA4 capital expenditure – GGT proposed and draft decision (\$ million real at 31 December 2023)**

| Category                               | 2020 | 2021 | 2022 | 2023 | 2024 | Total |
|--|------|------|------|------|------|-------|
| <b>Stay in business – GGT proposed</b> |      |      |      |      |      |       |
| Integrity                              | 0.14 | 0.00 | 0.00 | 0.00 | 0.35 | 0.49  |
| Rotating maintenance                   | 0.00 | 0.39 | 1.66 | 0.07 | 0.42 | 2.54  |
| End of equipment life                  | 2.22 | 0.06 | 0.20 | 1.53 | 3.53 | 7.53  |
| Net zero                               | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  |
| Physical security                      | 0.00 | 0.00 | 0.00 | 0.00 | 1.52 | 1.52  |

<sup>33</sup> 2022,2023 expenditure per RIN’s submitted to ERA, June 2024.

<sup>34</sup> EMCa, Technical report, p. 37 “GGT explicitly refers to its IT costs being included in its corporate charges in explaining that its corporate charges have increased in part because of higher IT costs. Refer to GGP-AA5-Proposal overview, page 83”.



| Category  | 2020          | 2021          | 2022          | 2023          | 2024          | Total         |
|---|---------------|---------------|---------------|---------------|---------------|---------------|
| Hazardous area / compliance                         | 0.07          | 0.00          | 0.46          | 0.06          | 0.55          | 1.14          |
| Reliability   | 3.97          | 8.49          | 1.86          | 2.94          | 2.68          | 19.94         |
| Other   | 0.75          | 1.21          | 1.41          | 1.09          | 0.19          | 4.66          |
| Buried pipework                                     | 0.00          | 0.02          | 0.30          | 0.61          | 1.05          | 1.99          |
| <b>Stay in business sub-total</b>                   | <b>7.14</b>   | <b>10.19</b>  | <b>5.88</b>   | <b>6.30</b>   | <b>10.28</b>  | <b>39.80</b>  |
| <i>Less adjustments:</i>                            |               |               |               |               |               |               |
| Cost allocation changes                             | (0.38)        | (0.26)        | (0.51)        | (0.25)        | (0.36)        | (1.77)        |
| End of equipment life                               | 0.00          | 0.00          | 0.00          | (0.42)        | (0.94)        | (1.37)        |
| Reliability   | (1.12)        | (2.94)        | 0.00          | 0.00          | 0.00          | (4.05)        |
| Other (NGI)   | 0.00          | (0.01)        | (0.13)        | (0.21)        | 0.00          | (0.36)        |
| <b>Subtotal adjustments</b>                         | <b>(1.50)</b> | <b>(3.21)</b> | <b>(0.65)</b> | <b>(0.89)</b> | <b>(1.31)</b> | <b>(7.55)</b> |
| <b>Stay in business draft decision</b>              | <b>5.64</b>   | <b>6.98</b>   | <b>5.24</b>   | <b>5.41</b>   | <b>8.98</b>   | <b>32.25</b>  |
|   |               |               |               |               |               |               |
| <b>Shared capital expenditure – GGT proposed</b>    | <b>3.25</b>   | <b>3.67</b>   | <b>7.85</b>   | <b>7.85</b>   | <b>7.79</b>   | <b>30.41</b>  |
| <i>Less adjustments:</i>                            |               |               |               |               |               |               |
| IT/OT   | (2.29)        | (1.97)        | (4.05)        | (4.86)        | (4.86)        | (18.03)       |
| Cyber   | (0.03)        | (0.36)        | (0.53)        | (1.59)        | (1.54)        | (4.05)        |
| Other shared corporate                              | (0.93)        | (1.34)        | (3.27)        | (1.40)        | (1.40)        | (8.33)        |
| <b>Shared capital expenditure draft decision</b>    | <b>0.00</b>   | <b>0.00</b>   | <b>0.00</b>   | <b>0.00</b>   | <b>0.00</b>   | <b>0.00</b>   |
|   |               |               |               |               |               |               |
| Total capital expenditure – GGT proposed            | 10.40         | 13.86         | 13.73         | 14.15         | 18.08         | 70.22         |
| Total adjustments                                   | (4.75)        | (6.88)        | (8.50)        | (8.74)        | (9.10)        | (37.96)       |
| Equity raising costs                                | 0.02          | 0.00          | 0.00          | 0.00          | 0.00          | 0.02          |
| <b>Total AA4 draft decision capital expenditure</b> | <b>5.66</b>   | <b>6.98</b>   | <b>5.24</b>   | <b>5.41</b>   | <b>8.98</b>   | <b>32.27</b>  |

Source: ERA draft decision capital expenditure model; equity raising costs from ERA tariff model

**Table 4.6: AA4 draft decision by asset category (\$ million real at 31 December 2023)**

| Category                              | 2020        | 2021        | 2022        | 2023        | 2024        | Total        |
|---------------------------------------|-------------|-------------|-------------|-------------|-------------|--------------|
| Pipeline and laterals                 | 0.08        | 0.02        | 0.24        | 0.04        | 0.00        | 0.38         |
| Main line valve and scraper stations  | 0.00        | 0.01        | -0.01       | 0.19        | 0.96        | 1.14         |
| Compressor stations                   | 4.85        | 6.14        | 3.66        | 4.08        | 7.00        | 25.73        |
| Receipt and delivery point facilities | 0.00        | 0.00        | 0.00        | 0.00        | 0.01        | 0.01         |
| SCADA and communications              | 0.12        | 0.09        | 0.07        | 0.48        | 0.38        | 1.14         |
| Cathodic protection                   | 0.00        | 0.00        | 0.00        | 0.00        | 0.09        | 0.09         |
| Maintenance bases and depots          | 0.13        | 0.65        | 0.60        | 0.21        | 0.00        | 1.59         |
| Other assets                          | 0.45        | 0.08        | 0.68        | 0.42        | 0.52        | 2.16         |
| Equity Raising Cost                   | 0.02        | 0.00        | 0.00        | 0.00        | 0.00        | 0.02         |
| IT/OT                                 | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00         |
| Cyber                                 | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00         |
| Other shared corporate                | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00         |
| <b>Total</b>                          | <b>5.66</b> | <b>6.98</b> | <b>5.24</b> | <b>5.41</b> | <b>8.98</b> | <b>32.27</b> |

Source: ERA draft decision capital expenditure model; equity raising costs from ERA tariff model

85. Table 4.7 contains the ERA's closing capital base for AA4, showing the adjustment for the benefit GGT received for actual 2019 (final year of AA3) being below the forecast amount, and rolling forward the approved capital expenditure (noted above) less the forecast depreciation approved for the AA4 period.

**Table 4.7: ERA's closing capital base for AA4 (\$ million real at 31 December 2023)**

|   | 2019          | 2020          | 2021          | 2022          | 2023          | 2024          |
|---|---------------|---------------|---------------|---------------|---------------|---------------|
| Opening capital base 2019 before adjustment   | 457.44        |               |               |               |               |               |
| Benefit from the difference between the estimated and actual 2019 capital expenditure | (0.06)        |               |               |               |               |               |
| <b>Opening capital base</b>   | <b>457.38</b> | <b>445.24</b> | <b>438.05</b> | <b>431.05</b> | <b>422.25</b> | <b>413.61</b> |
| Plus: Capital expenditure   | 1.53          | 5.66          | 6.98          | 5.24          | 5.41          | 8.98          |
| Less: Depreciation  | 13.67         | 12.85         | 13.99         | 14.03         | 14.05         | 12.83         |
| <b>Closing capital base</b>   | <b>445.24</b> | <b>438.05</b> | <b>431.05</b> | <b>422.25</b> | <b>413.61</b> | <b>409.77</b> |

Source: ERA tariff model

**Required Amendment**

- 4.1 GGT must amend its access arrangement information to revise its AA4 forecast capital expenditure to \$32.3 million (\$ real as at 31 December 2023), consistent with Table 4.6 of Draft Decision Attachment 4.
- 4.2 GGT should update its forecast AA4 capital costs with the latest labour cost escalation update available and provide the ability for the ERA to update this its final decision model.

**Projected capital base**

86. GGT proposed a projected capital base for AA5 of \$409.99 million at 31 December 2029. Table 4.8 details GGT's projected capital base calculation for AA5.

**Table 4.8: GGT's projected capital base for AA5 (\$ million real at 31 December 2023)**

|                                  | 2025          | 2026          | 2027          | 2028          | 2029          |
|----------------------------------|---------------|---------------|---------------|---------------|---------------|
| Opening capital base             | 441.65        | 451.51        | 444.31        | 432.71        | 422.39        |
| <i>Plus:</i> Capital expenditure | 30.94         | 13.88         | 9.16          | 9.41          | 6.18          |
| <i>Less:</i> Depreciation        | 21.08         | 21.09         | 20.76         | 19.73         | 18.58         |
| <i>Less:</i> Asset disposals     | 0.00          | 0.00          | 0.00          | 0.00          | 0.00          |
| <b>Closing capital base</b>      | <b>451.51</b> | <b>444.31</b> | <b>432.71</b> | <b>422.39</b> | <b>409.99</b> |

Source: ERA analysis

**AA5 Capital Expenditure**

87. GGT submitted that the full life-cycle planning process for the GGP is managed through APA's "Operational Excellence Framework" and supporting business processes. This includes the asset management system and planning processes which translate strategy into actionable plans that balance cost, risk and performance.<sup>35</sup>
88. GGT submits that its systems provide a live view of all proposed investments mapped by:
- Risk – with a ranking based on APA's Enterprise Risk Matrix. This takes into account the likelihood and impact of events across several dimensions.
  - Asset Management Plan Alignment – Capturing other benefits which could relate to better customer outcomes, improved compliance or reliability, emissions reductions etc.
89. Consistent with the requirements set out in Pipeline Licence 24, the GGP is designed, constructed, tested, operated, and maintained in accordance with AS 2885, the Australian Standard for high-pressure gas pipelines. This standard requires risks to

<sup>35</sup> GGT, *Goldfields Gas Pipeline AA5 – Capital Expenditure Overview*, 1 January 2024, p. 8.

be identified, managed and, where appropriate, eliminated or reduced to as low as reasonably practicable (ALARP). ALARP is only achieved when the cost of further risk reduction measures is grossly disproportionate to the reduced risk.<sup>36</sup>

90. GGT has applied a series of cost estimation approaches for each expenditure item:
- Where there are recent quotes or market prices, and the scope is largely known (for instance with GGT's in line inspection (ILI) program) GGT has produced a build-up of costs. This build up is then cross checked against top-down benchmarks (of ILI costs per section) of similar projects delivered by APA.
  - Where there are similar recent costs (such as for turbine overhauls), those costs are used as the basis of the forecast.
  - For works where the scope is unknown, GGT has used high-level estimates based on previous works of a similar location (given mobilisation is a large component of costs on the GGP), complexity and length.
  - Where GGT has not undertaken similar works in the past (such as with physical security), a bottom-up build is produced.
91. GGT has also benchmarked its expenditure against other large gas pipelines in Australia and suggests that the AA5 expenditure is at a level consistent with what a prudent service would incur, consistent with good industry practise.<sup>37</sup>
92. GGT is proposing to invest a total of \$69.3 million for replacement and stay in business programs, IT/OT, and security of critical infrastructure programs.
93. This includes major asset replacement and maintenance programs as well as the significant inline inspection program scheduled to occur in 2025. Stay in business investments make up 75 per cent of the total forecast capital expenditure for the AA5 period. Shared corporate costs (IT/OT, cyber and property and national programs) make up the remaining 25%.
94. The ERA assessed GGT'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. i.e. has been arrived at on a reasonable basis and represents the best forecast or estimate possible in the circumstances.
95. The ERA considered information provided by GGT and the ERA's consultant (EMCa) to determine the amount of capital expenditure which met the requirements of the NGR.
96. Table 4.9 shows GGT's proposed AA5 capital expenditure.

<sup>36</sup> GGT, *Goldfields Gas Pipeline AA5 – Capital Expenditure Overview*, 1 January 2024, p. 9.

<sup>37</sup> GGT, *Goldfields Gas Pipeline AA5 – Capital Expenditure Overview*, 1 January 2024, pp. 19, 20.

**Table 4.9: GGT proposed AA5 capital expenditure (\$ million real at 31 December 2023)**

| Capital expenditure by category             | 2025        | 2026        | 2027       | 2028       | 2029       | Total       |
|---|-------------|-------------|------------|------------|------------|-------------|
| <b>Stay in business</b>                     |             |             |            |            |            |             |
| Integrity                                   | 9.8         | 3.1         | 0.0        | 0.0        | 0.0        | 12.9        |
| Rotating maintenance                        | 0.5         | 0.2         | 1.7        | 0.4        | 0.3        | 3.1         |
| End of equipment life                       | 4.7         | 3.2         | 1.6        | 1.1        | 0.4        | 11.0        |
| Net zero                                    | 4.0         | 0.0         | 0.0        | 0.0        | 0.0        | 4.0         |
| Physical security                           | 3.7         | 2.7         | 0.8        | 0.4        | 0.0        | 7.6         |
| Hazardous area / compliance                 | 0.7         | 0.2         | 0.0        | 0.0        | 0.0        | 0.8         |
| Reliability                                 | 0.3         | 0.0         | 2.0        | 2.0        | 0.0        | 4.3         |
| Other                                       | 0.3         | 0.3         | 0.1        | 0.1        | 0.3        | 1.2         |
| Buried pipework                             | 1.0         | 0.8         | 0.3        | 0.0        | 0.0        | 2.1         |
| <b>Stay in business sub-total</b>           | <b>25.0</b> | <b>10.4</b> | <b>6.6</b> | <b>4.0</b> | <b>1.0</b> | <b>47.0</b> |
| <b>Shared capital expenditure</b>           |             |             |            |            |            |             |
| IT/OT                                       | 2.8         | 1.2         | 0.5        | 0.4        | 0.2        | 5.2         |
| Cyber                                       | 1.1         | 0.9         | 0.7        | 0.6        | 0.6        | 3.8         |
| Other shared corporate                      | 1.4         | 1.4         | 1.4        | 1.4        | 1.4        | 7.0         |
| <b>Shared capital expenditure sub-total</b> | <b>5.3</b>  | <b>3.5</b>  | <b>2.5</b> | <b>2.4</b> | <b>2.2</b> | <b>15.9</b> |
| <b>Total AA5 capital expenditure</b>        | <b>30.2</b> | <b>13.9</b> | <b>9.1</b> | <b>6.4</b> | <b>3.2</b> | <b>62.9</b> |

Source: GGT, IR EMCa 32.

### **Stay in business capital expenditure**

97. Stay in business capital expenditure relates to the ongoing investment required to ensure that the GGP can continue to operate safely, reliably, and efficiently. The increase in capital expenditure in AA5 is largely driven by the in-line inspection program (recurrent on a 10-year timeframe so not included in AA4) and a one-off program to maintain physical security. Each category of stay in business capital expenditure is discussed below.

#### *Integrity (including in-line inspection)*

98. Pipelines are vulnerable to various forms of degradation such as corrosion, cracking, fatigue, stress-related failures, vibration, wear, and external damage. These vulnerabilities can lead to catastrophic failures ranging from pin-hole leaks to the complete “unzipping” of the pipeline.

99. To mitigate these risks, good industry practice is to conduct periodic inspections using in-line inspection tools, commonly known as pigs. Inspections allow for the early

identification of issues, which are then either rectified or closely monitored, depending on their severity and growth rate.

100. Good industry practice (across Australia and internationally) is to undertake inspections at a maximum frequency of at least 10 years, unless specific risk factors require more regular intervals. As the GGP was inspected using in-line inspection tools in 2015, the next scheduled inspection is due in 2025.<sup>38</sup>
101. In-line inspection tools generally fall into three categories: geometry detection, metal loss detection – primarily using Magnetic Flux Leakage (MFL) – and crack detection using ultrasonic or Electromagnetic Acoustic Sensors Tools (EMAT).
- Calliper tools were among the initial in-line inspection technologies, designed to gauge pipeline geometry and identify deformations such as dents or ovalities. While calliper tools do not directly detect mechanical stress cracking, they can identify features and deformations that may be indicative of conditions that could potentially lead to cracking.
  - MFL tools have become the standard for detecting metal loss. Axial Field MFL (MFL-A), the oldest MFL technology, employs a magnetic field orientated in the direction of the pipeline axis. MFL-A has a proven history of identifying the majority of corrosion threats, such as general corrosion and pitting. However, it has known limitations in detecting long, narrow axially aligned metal loss.
  - Circumferential Field MFL (MFL-C) uses a magnetic field oriented circumferentially around the pipeline, perpendicular to the direction of the MFL-A tool. As a result, MFL-C excels in identifying long narrow axially orientated metal loss defects. MFL-C is generally used as a complement to MFL-A.
  - Tri-axial MFL sensors, the latest advancement, using three orthogonal sensors to measure magnetic fields in multiple directions, providing higher resolution detection of complex anomalies.
  - EMAT and ultrasonic tools are specialized tools for detecting stress corrosion cracking. They generate ultrasonic pulses to identify cracks and coating disbondment.
102. GGT considered five options:
- Option 1 – ILI using calliper, MFL-A and MFL-C tools (complaint with PIMP and Asset Performance and Lifecycle Plan) (Recommended Option).
  - Option 2 – Defer ILI by 5 years.
  - Option 3 – ILI with EMAT Survey.
  - Option 4 – ILI without MFL-C.
  - Option 5 – ILI with Tri-axial MFL.
103. GGT has suggested its preferred option is option 1. While alternative options (2, 4 and 5) had marginally lower cost, GGT's view was that these savings came at the expense of reduced identification of pipeline defects or defect growth resulting in a high external corrosion risk - which is not ALARP. GGT considered that the lack of visibility, restricted its ability to monitor, introduce additional controls or take action to

<sup>38</sup> GGT, Goldfields Gas Pipeline AA5 – Capital Expenditure Overview, 1 January 2024, p. 25.

rectify defects to prevent a catastrophic failure. As such, GGT considered that these options were not compliant with the application of AS 2885 (and in turn licence/regulatory requirements) or with accepted good industry practice.

104. The business case proposes the investment of \$18.8 million for the in-line inspection of the GGP to monitor and identify integrity threats. This project includes the following up direct inspection of anomalies and remediation and repair. The project is due to commence in 2024 and will be completed in 2026. In AA5, \$18.3 million will be incurred of which \$12.9 million will be allocated to the covered pipeline.<sup>39</sup>
105. EMCa considered that undertaking the inspection is in line with good industry practise. Option 1 was considered the prudent choice and having reviewed the cost estimate, considers that the expenditure level is efficient.
106. Based on the above, the ERA considers that the amount of capital expenditure meets the requirements of the NGR.

### *Rotating maintenance*

107. GGP rotating plant consists of:
- Reciprocating and Turbine Compressors, which compress and move gas through the pipeline.
  - GEAs, which supply electrical power at the pipeline's remote compressor stations.
108. This rotating plant is critical to the safe and reliable supply of gas. GGT's equipment requires regular maintenance to counteract the wear and tear associated with continuous or intermittent operation. Components such as pistons, bearings, blades, seals, and O-rings are all subject to stress and degradation over time, posing risks of equipment failure. To mitigate these risks and ensure operating efficiency and safety, the rotating plant undergoes regular servicing and periodic overhauls. Overhauls are capital expenditure.
109. GGT considered the following options:
- Turbine compressors:
    - Option 1 – Program consistent with APA's maintenance regime (Recommended Option)
    - Option 2 – Reactive approach
    - Option 3 – Deploy equipment health monitoring
  - Reciprocating compressors:
    - Option 1 – Program consistent with APA's maintenance regime (Recommended Option)
    - Option 2 – Reactive approach

<sup>39</sup> As the costs of undertaking the ILI campaign cannot be attributed to a specific compressor unit and the costs relate to the distance of the pipeline, costs are allocated to the covered pipeline in line with the covered percentage of TJ/km of contracted capacity.

- GEAs:
    - Option 1 – Program consistent with APA’s maintenance regime (Recommended Option)
    - Option 2 – Reactive approach.
110. GGT noted that reactive approaches are likely to result in an unacceptably high risk to supply interruptions and that the best balance of cost, risk and performance is to maintain the current maintenance regime.
111. The business case proposed investment of \$26.6 million to undertake rotating major maintenance of the GGP’s rotating plant: turbine compressors, reciprocating compressors and GEAs. In AA5, GGT proposes to incur \$18.4 million of which \$3.1 million will be allocated to the covered pipeline.<sup>40</sup>
112. EMCa considers that GGP has proposed a reasonable AA5 maintenance program.
113. For turbine compressors, GGT considered three options:
- Program based on APA’s maintenance regime consistent with the Asset Performance and Lifecycle Plan (recommended).
  - Move to a reactive replacement approach.
  - Deploy advanced monitoring equipment and defer overhauls by 4,000 hours.
114. EMCa considers that GGT has selected the cheapest technically viable option (Option 1) and that the expenditure is reasonable.<sup>41</sup>
115. Having reviewed the above, the ERA considers that the amount of rotating equipment maintenance capital expenditure meets the requirements of the NGR.

### *End of equipment life (EoEL)*

116. GGP is approaching mid-life and will be 33 years old by 2029. Components such as cathodic protection units, valve actuators, solar power and battery systems and control units have much shorter asset lifespans ranging from about 10 years to 30 years.
117. Good industry practice (across Australia and internationally) is to undertake inspections at a maximum frequency of at least 10 years, unless specific risk factors require more regular intervals. As the GGP was inspected using in-line inspection tools in 2015, the next scheduled inspection is due in 2025.<sup>42</sup>
118. Over time factors such as wear and tear, performance degradation and obsolescence lead to increasing safety, reliability and integrity risks and the development of a replacement program.

<sup>40</sup> Compressor overhauls are allocated based on the unit. Covered compressor units include Yarraloola unit 1, Yarraloola unit 2, Paraburdoo unit 1, Ilgarari unit 1, Ilgarari unit 2 and Wiluna unit 1 – all others are uncovered. GEA’s are allocated based on the ratio of covered and uncovered units at each site. The covered ratios are Yarraloola 67%, Paraburdoo 33%, Ilgarari 100%, Wiluna 100%, all others are uncovered (0%).

<sup>41</sup> EMCa, Review of technical aspects of the GGP AA 2025-29, June 24, p. 45.

<sup>42</sup> GGT, Goldfields Gas Pipeline AA5 – Capital Expenditure Overview, 1 January 2024, p. 25.



119. Over AA5, GGT will undertake a targeted program of works to “re-life” these facilities by addressing obsolescence risks associated with electrical control and instrumentation equipment. The program targets Remote Terminal Units, Cathodic Protection Units, solar power systems, gas chromatographs and remotely controlled actuators.
120. EMCa considers that a prudent operator would address EoEL (obsolescence) issues with this plant, with work prioritised based on risk. In this context, EMCa considers the rationale presented in GGT’s business case for targeting the five asset types in the AA5 period to be compelling.
121. GGT has identified that it is possible to spread the program out over two access arrangement periods.
122. GGT considered four different programs of work:
- Defer program to AA6.
  - Focus on control and cathodic protection systems.
  - Complete in AA5.
  - Complete over AA5 and AA6 (preferred option).
123. GGT has selected option 4 (complete over AA5 and AA6) as it represents the best balance of cost, risk and performance. Specifically, GGT considers option 4 is the lowest cost option with an acceptable level of risk. Option 1 (Defer to AA6) was not selected, even though it has a lower cost, due to the unacceptable financial and operational capability risks. Option 3 (complete in AA5) was not selected primarily due to deliverability risks from a whole of GGP program perspective.
124. EMCa reviewed the options and considered that GGT had selected the prudent option.
125. Development work on the program has commenced. The business case submitted by GGT seeks approval of \$41.3 million to undertake a program to replace end of life equipment across the GGP over the remainder of AA4 as well as AA5 and AA6. Of this \$41.3 million, \$20.6 million is scheduled to be included in AA5 and \$11 million will be allocated to the covered pipeline.<sup>43</sup>
126. In line with the explanation in the AA4 section, EMCa considers that some of the receipt and delivery points at which GGT propose work in AA5 are more reasonably considered to be uncovered assets. This results in an adjustment as indicated in Table 6. The balance of the capital expenditure forecast is likely to be compliant with the NGR because:
- APA/GGT have extensive experience in equipment life extension work on the GGP; and
  - its experience has led it to reduce delivery cost by undertaking a site-by-site deployment (rather than a component-led program).

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<sup>43</sup> The allocation of costs to covered and uncovered pipelines has been made on a site-by-site basis.

127. Having reviewed the GGT's proposal and EMCa's report, the ERA considers that \$8.4 million of end of equipment life capital expenditure meets the requirements of the NGR.

### *Net zero*

128. The GGP is responsible for emitting about 120,000 tonnes of carbon dioxide (tCO<sub>2</sub>e) each year. Around 80 per cent of emissions relate to fuel gas usage for compression and electricity generation. Most of the remaining 20 per cent relate to methane emissions across the pipeline. Methane emissions arise due to unintentional leaks (generally at flanges, valves, and seals etc.) as well as from intentional releases like venting and blowdowns.
129. GGP has factored emission reduction benefits into its forecast capital expenditure. GGT expects to realise a reduction in emissions from the project to install dry gas seals at Wiluna. The emissions reduction benefit has been considered and quantified, even though the project is primarily driven by the reduction in risk of oil-in pipeline events from the existing wet seals and hence could be categorised under reliability.
130. These works are forecast to cost \$4 million in AA5 and are expected to reduce emissions by about 2,475 t CO<sub>2</sub>-e per year. The project is due to commence and be completed in 2025.
131. EMCa considers that GGT presents a sound case for considering remedial action, noting the history of leaks from Wiluna and broader industry experience of wet seals, and the emissions benefit.
132. GGT presents its analysis of three options in its business case:<sup>44</sup>
- Status quo – make no changes to the seals at Wiluna
  - Install dry gas seals (and an air power system) where the air power system allows the compressor station to 'shift from gas powered to air powered instrumentation, actuation and to power the starter motor'<sup>45</sup> (preferred option)
  - Install dry gas seals and a blow-down recovery system.
133. The selected Option 2 replaces obsolete seals with contemporary technology. Dry gas seals on compressors have been the industry standard for over 20 years. Seals on the rotating shaft of centrifugal gas turbine compressors prevent gas from escaping the compressor casing. Dry seals eliminate the risk of oil leaking into pipelines which can cause downstream issues with customer plant, present in wet seal systems such as installed at Wiluna. EMCa considers this to be the prudent choice.
134. The capital expenditure forecast is based on cost estimates of \$1.0 million for a new air system, \$2.0 million to retrofit new dry gas seals, and \$1.0 million for mobilisation, project management and installation (new pipework etc.). EMCa considers these to be high-level estimates, but reasonable and resulting in a forecast that is expected to satisfy the capital expenditure criteria.

<sup>44</sup> GGP-AA5-Attachment 10.13-SIB business case - Wiluna wet seals-1 January 2024-Confidential, pp. 9-14.

<sup>45</sup> GGP-AA5-Attachment 10.13-SIB business case - Wiluna wet seals-1 January 2024-Confidential, p. 10.

135. Having reviewed the above, the ERA considers that the amount of capital expenditure satisfies the requirements of the NGR. However, the ERA has approved this expenditure under the reliability category noting that emissions reduction is an added benefit.

### *Physical security*

136. The GGP is facing increasing threats [REDACTED]. A physical security threat and risk assessment of the GGP has been undertaken [REDACTED].
137. Based on the results of this assessment a program of works, due to commence in 2024, has been developed to address [REDACTED].
138. GGT identifies [REDACTED] as the most important, requiring the highest level of [REDACTED]. The proposed work and expenditure comprise [REDACTED]. The business case identifies the sequence of work and the costs per annum, with the [REDACTED] to be completed in 2025.
139. EMCa considers that the AA5 work satisfies the capital expenditure criteria.
140. Based on the above, the ERA considers that the amount of end of equipment life capital expenditure meets the requirements of the NGR.

### *Hazardous area*

141. A hazardous area is where electrical equipment is installed and is required to comply with all appropriate and applicable Australian standards, acts, and regulations, including AS/NZS 60079 Explosive atmospheres and AS/NZS 3000:2018 Electrical Installations (Wiring rules).
142. In late 2022, APA engaged a contractor to perform an Electrical Equipment Hazardous Area (EEHA) inspection of Paraburdoo Compressor Station and Ilgarari Compressor Station on the GGP. These inspections have identified a series of defects which need to be rectified to be compliant with relevant regulations, and to reduce risk to health, safety, and operations.
143. Development and planning work commenced for both compressor stations during 2023. GGT anticipates on site rectification works commencing at Paraburdoo in July 2024 with completion of works at both sites during the first quarter of 2026.
144. The cost of these works is \$0.8 million over AA5. This is slightly below the spend in AA4 (\$1.0 million) which included the commencement of these works as well as works to improve the fire suppression systems at Yarraloola and Wyloo.
145. The ERA considers that the amount of hazardous area capital expenditure meets the requirements of the NGR.

## Reliability

146. GGT submits that ongoing investment is required to maintain reliability of supply. It is essential that the GEAs, which power compressor stations, continue to function.
147. The current model of GEAs deployed across the GGP is obsolete and units across the GGP are reaching the end of their useful lives. GGT submits that it intends to progressively replace its GEA's over time. This program has been developed based onsite criticality, condition, and the new compressor operating philosophy.
148. Over the AA5 period, GGT intends to replace the GEA at Wiluna largely as it is one of the oldest stations in GGT's fleet and has the highest criticality. The reliability work at Paraburdoo and Ilgarari has been deferred by GGT until the AA6 period.
149. The replacement GEA's at Wiluna together with some minor reliability improvements at Ilgarari make up the forecast of \$4.3 million in AA5.
150. The cost of the Yarraloola GEA replacement in the AA4 period increased significantly from the initial estimate to a final cost of \$8.7 million due to the expanded scope of work during the project, going well beyond 'simple' replacement of the GEA. Given the business case for the whole program (that is, including the AA4 and AA5 work) was finalised in late 2023, EMCa assumes that GGT with APA have had a close look at the required scope and cost of work for Wiluna cognisant of the Yarraloola project.
151. For the reasons given in the AA4 capital expenditure reliability section regarding the replacement of the Yarraloola GEA,<sup>46</sup> EMCa supported the rationale, timing, and cost for replacing the Wiluna GEA in the AA5 period as GGT has proposed.
152. Considering the above, the ERA is of the view that the proposed AA5 reliability work is reasonably likely to satisfy the capital expenditure criteria.

## Other stay in business work

153. GGT advised that its other stay in business costs related to miscellaneous capital, vehicles, site accommodation upgrades and the installation of new metering stations.
154. For AA5, GGT forecast \$1.2 million in capital expenditure for vehicles and miscellaneous capital. GGT explained that its forecast is less than capital expenditure in AA4 (\$4.4 million) primarily as it is not forecasting specific site accommodation upgrades or new metering stations.
155. Miscellaneous capital expenditure (\$0.7 million) covers the expenditure to undertake minor capital works and purchase instrumentation, tools which EMCa considered reasonable.
156. GGT advised that most of its vehicles are leased but that it owns specialist vehicles such as forklifts, trailers and heavy-duty commercial trucks. The forklifts and trailers were purchased and delivered during the construction of the GGP in the mid-1990s and are still in use. At around 27 years of age these vehicles are well beyond industry benchmark of around 10 to 15 years. Two vehicles are scheduled to be replaced in 2026 and one is to be replaced in 2029 at a cost of \$0.5 million. EMCa reviewed this cost and considered it reasonable.

<sup>46</sup> Draft decision to the AA of GGP, Attachment 4, para 59.

157. Having reviewed the above, the ERA considers that the amount of other stay in business work expenditure meets the requirements of the NGR.

### *Buried pipework*

158. APA have recently reported three separate environmental incidents to the Department of Energy, Mines, Industry Regulation and Safety that have occurred at compressor sites on the GGP.
159. Investigations into these incidents found the root cause related to the design, operability and maintenance of chemical and chemical waste storage and transfer systems.
160. To reduce the risk of unidentified integrity issues remains as low as reasonably practicable, in accordance with APA's Pressure Piping Integrity Management Plan and Pressure Pipework Guidelines, GGT has commenced a program of works to relocate pipework to above ground at all compressor sites. This option is consistent with AS/NZS 3788 (the standard for pressure equipment), accepted good industry practice and is required to comply with environment regulations.
161. Based on site criticality and the condition assessments, a program of work commenced in 2023 starting with Yarraloola and ends in 2027.
162. The program is a continuation of the program started in AA4 and the ERA, based on EMCa's recommendation, considers that the amount of buried pipework expenditure meets the requirements of the NGR.

### *Shared AA5 capital expenditure*

163. GGT proposes shared AA5 capital expenditure totalling \$15.9 million. The expenditure comprises a range of IT/OT projects, cyber security and expenditure on 'other' assets. Almost 50 per cent is referred to as 'other'. On reviewing GGT's response to EMCa's information request, EMCa found that this is an extrapolation of a range of such expenditures incurred in 2021 that includes other IT projects as well as expenditure on a number of properties with only one property in Western Australia.<sup>47</sup>
164. The ERA has reviewed all relevant information and considers that insufficient justification has been provided by GGT as to the reason for the change in method for incorporating APA corporate costs into capital expenditure and in addition, how this change has affected the ongoing corporate charge in operating expenditure in each of the categories of IT/OT, cyber and other expenditure. Given the above, the ERA does not approve the shared capital expenditure in its draft decision.
165. Excluding this amount will therefore result in a forecast capital expenditure allowance that is \$15.9 million less than GGT proposed.

### *ERA draft decision*

166. The ERA concludes that \$44.3 million of GGT's proposed AA5 capital expenditure satisfies the criteria for conforming capital expenditure set out in rule 79 of the NGR.

<sup>47</sup> EMCa, Review of technical aspects of the GGP AA 2025-29, June 24, p. 50.

Table 4.10 shows GGT's proposed AA5 capital expenditure, and the ERA's draft decision AA5 capital expenditure.

**Table 4.10: AA5 capital expenditure – GGT proposed and draft decision (\$ million real at 31 December 2023)**

| Category  | 2025          | 2026          | 2027          | 2028          | 2029          | Total          |
|---|---------------|---------------|---------------|---------------|---------------|----------------|
| <b>Stay in business – GGT proposed</b>              |               |               |               |               |               |                |
| Integrity   | 9.79          | 3.08          | 0.00          | 0.00          | 0.00          | 12.87          |
| Rotating maintenance                                | 0.45          | 0.17          | 1.69          | 0.43          | 0.33          | 3.08           |
| End of equipment life                               | 4.68          | 3.16          | 1.62          | 1.11          | 0.38          | 10.95          |
| Net zero  | 4.00          | 0.00          | 0.00          | 0.00          | 0.00          | 4.00           |
| Physical security                                   | 3.73          | 2.67          | 0.83          | 0.37          | 0.00          | 7.60           |
| Hazardous area / compliance                         | 0.68          | 0.15          | 0.00          | 0.00          | 0.00          | 0.84           |
| Reliability   | 0.31          | 0.03          | 2.00          | 1.98          | 0.00          | 4.31           |
| Other   | 0.29          | 0.29          | 0.15          | 0.15          | 0.30          | 1.18           |
| Buried pipework                                     | 1.03          | 0.83          | 0.28          | 0.00          | 0.00          | 2.14           |
| <b>Stay in business sub-total</b>                   | <b>24.96</b>  | <b>10.38</b>  | <b>6.57</b>   | <b>4.04</b>   | <b>1.01</b>   | <b>46.96</b>   |
| <i>Less adjustments:</i>                            |               |               |               |               |               |                |
| Cost allocation changes                             | (0.54)        | (0.34)        | (0.22)        | (0.16)        | (0.07)        | (1.33)         |
| End of equipment life                               | (1.07)        | (0.55)        | 0.00          | 0.00          | 0.00          | (1.62)         |
| <b>Stay in business draft decision</b>              | <b>23.35</b>  | <b>9.49</b>   | <b>6.35</b>   | <b>3.88</b>   | <b>0.94</b>   | <b>44.01</b>   |
| <b>Shared capital expenditure – GGT proposed</b>    | <b>5.29</b>   | <b>3.50</b>   | <b>2.55</b>   | <b>2.37</b>   | <b>2.21</b>   | <b>15.93</b>   |
| <i>Less adjustments:</i>                            |               |               |               |               |               |                |
| IT/OT   | (2.81)        | (1.25)        | (0.47)        | (0.41)        | (0.24)        | (5.17)         |
| Cyber   | (1.09)        | (0.86)        | (0.68)        | (0.57)        | (0.57)        | (3.77)         |
| Other shared corporate                              | (1.40)        | (1.40)        | (1.40)        | (1.40)        | (1.40)        | (6.99)         |
| <b>Shared capital expenditure draft decision</b>    | <b>0.00</b>   | <b>0.00</b>   | <b>0.00</b>   | <b>0.00</b>   | <b>0.00</b>   | <b>0.00</b>    |
| <b>Total capital expenditure – GGT proposed</b>     | <b>30.25</b>  | <b>13.88</b>  | <b>9.12</b>   | <b>6.41</b>   | <b>3.22</b>   | <b>62.88</b>   |
| <b>Total adjustments</b>                            | <b>(6.90)</b> | <b>(4.40)</b> | <b>(2.77)</b> | <b>(2.54)</b> | <b>(2.27)</b> | <b>(18.87)</b> |
| Equity raising costs                                | 0.28          | 0.02          | 0.00          | 0.00          | 0.00          | 0.30           |
| <b>Total AA5 draft decision capital expenditure</b> | <b>23.63</b>  | <b>9.51</b>   | <b>6.35</b>   | <b>3.88</b>   | <b>0.94</b>   | <b>44.30</b>   |

Source: ERA capital expenditure model; equity raising costs from ERA tariff model

**Table 4.11: AA5 capital expenditure draft decision by asset category (\$ million real at 31 December 2023)**

| Category                              | 2025         | 2026        | 2027        | 2028        | 2029        | Total        |
|---------------------------------------|--------------|-------------|-------------|-------------|-------------|--------------|
| Pipeline and laterals                 | 0.00         | 0.00        | 0.05        | 0.05        | 0.00        | 0.09         |
| Main line valve and scraper stations  | 1.69         | 1.23        | 1.09        | 1.06        | 0.32        | 5.39         |
| Compressor stations                   | 11.38        | 4.21        | 4.27        | 2.40        | 0.33        | 22.59        |
| Receipt and delivery point facilities | 0.07         | 0.43        | 0.38        | 0.01        | 0.00        | 0.88         |
| SCADA and communications              | 0.10         | 0.00        | 0.00        | 0.00        | 0.00        | 0.10         |
| Cathodic protection                   | 0.20         | 0.17        | 0.07        | 0.00        | 0.01        | 0.45         |
| Maintenance bases and depots          | 0.00         | 0.14        | 0.37        | 0.22        | 0.00        | 0.73         |
| Other assets                          | 9.92         | 3.30        | 0.13        | 0.13        | 0.28        | 13.77        |
| Equity raising costs                  | 0.28         | 0.02        | 0.00        | 0.00        | 0.00        | 0.29         |
| IT/OT                                 | 0.00         | 0.00        | 0.00        | 0.00        | 0.00        | 0.00         |
| Cyber                                 | 0.00         | 0.00        | 0.00        | 0.00        | 0.00        | 0.00         |
| Other shared corporate                | 0.00         | 0.00        | 0.00        | 0.00        | 0.00        | 0.00         |
| <b>Total AA5 capital expenditure</b>  | <b>23.63</b> | <b>9.51</b> | <b>6.35</b> | <b>3.88</b> | <b>0.94</b> | <b>44.30</b> |

Source: ERA capital expenditure model; equity raising costs from ERA tariff model

167. The ERA's draft decision closing capital base for AA5 is \$384.42 million using the capital expenditure approved above and the regulatory depreciation of these values (see Draft Decision Attachment 6).

**Table 4.12: ERA's closing capital base for AA5 (\$ million real at 31 December 2023)**

|                             | 2025          | 2026          | 2027          | 2028          | 2029          |
|-----------------------------|---------------|---------------|---------------|---------------|---------------|
| <b>Opening capital base</b> | <b>409.77</b> | <b>420.96</b> | <b>416.51</b> | <b>408.60</b> | <b>398.03</b> |
| Plus: Capital expenditure   | 23.63         | 9.51          | 6.35          | 3.88          | 0.94          |
| Less: Depreciation          | 12.44         | 13.95         | 14.26         | 14.45         | 14.55         |
| Less: Asset disposals       | 0.00          | 0.00          | 0.00          | 0.00          | 0.00          |
| <b>Closing capital base</b> | <b>420.96</b> | <b>416.51</b> | <b>408.60</b> | <b>398.03</b> | <b>384.42</b> |

Source: ERA tariff model

**Required Amendment**

- 4.3 GGT must amend its access arrangement information to revise its AA5 forecast capital expenditure to \$44.3 million (\$ real as at 31 December 2023), consistent with Table 4.11 of Draft Decision Attachment 4.
- 4.4 GGT should update its AA5 capital costs with the latest labour cost escalation update available and provide the ability for the ERA to update this in its final decision model.



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## Appendix 2 National Gas Rules

The National Gas Law (NGL) and National Gas Rules (NGR), as enacted by the *National Gas (South Australia) Act 2008*, establish the legislative framework for the independent regulation of certain gas pipelines in Australia. The *National Gas Access (WA) Act 2009* implements a modified version of the NGL and NGR in Western Australia.

The legislative framework for the regulation of gas pipelines includes a central objective, being 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—

- (a) price, quality, safety, reliability and security of supply of natural gas; and
- (b) the achievement of targets set by a participating jurisdiction—
  - (i) for reducing Australia’s greenhouse gas emissions; or
  - (ii) that are likely to contribute to reducing Australia’s greenhouse gas emissions.

**Note—**

The AEMC must publish targets in a targets statement: see section 72A.<sup>48</sup>

The following extracts of the NGR, as they apply in Western Australia, are provided for information to assist readers.

**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.

**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:
    - (i) capital expenditure (by asset class) over the earlier access arrangement period; and

<sup>48</sup> NGL, section 23.

The national gas objective has changed since the last review of GGT’s access arrangement. The amended objective came into effect in Western Australia on 25 January 2024. See: *Western Australian Government Gazette 24 January 2024 No.8* ([online](#)) (accessed July 2024).

- (ii) operating expenditure (by category) over the earlier access arrangement period; and
- (iii) usage of the pipeline over the earlier access arrangement period showing:
  - (A) for a distribution pipeline, minimum, maximum and average demand and, for a transmission pipeline, minimum, maximum and average demand for each receipt or delivery point; and
  - (B) for a distribution pipeline, customer numbers in total and by tariff class and, for a transmission pipeline, user numbers for each receipt or delivery point;
- (b) how the capital base is arrived at and, if the access arrangement period commences at the end of an earlier access arrangement period, a demonstration of how the capital base increased or diminished over the previous access arrangement period;
- (c) the projected capital base over the access arrangement period, including:
  - (i) a forecast of conforming capital expenditure for the period and the basis for the forecast; and
  - (ii) a forecast of depreciation for the period including a demonstration of how the forecast is derived on the basis of the proposed depreciation method;
- (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;
- (e) a forecast of operating expenditure over the access arrangement period and the basis on which the forecast has been derived;
- (f) [Deleted];
- (g) the allowed rate of return for each regulatory year of the access arrangement period;
- (h) the estimated cost of corporate income tax calculated in accordance with rule 87A, including the allowed imputation credits referred to in that rule;
- (i) if an incentive mechanism operated for the previous access arrangement period—the proposed carry-over of increments for efficiency gains or decrements for efficiency losses in the previous access arrangement period and a demonstration of how allowance is to be made for any such increments or decrements;
- (j) the proposed approach to the setting of tariffs including:
  - (i) the suggested basis of reference tariffs, including the method used to allocate costs and a demonstration of the relationship between costs and tariffs; and
  - (ii) a description of any pricing principles employed but not otherwise disclosed under this rule;
- (k) the service provider's rationale for any proposed reference tariff variation mechanism;
- (l) the service provider's rationale for any proposed incentive mechanism;

- (m) the total revenue to be derived from pipeline services for each regulatory year of the access arrangement period.
- (2) The access arrangement information for an access arrangement variation proposal related to a full access arrangement must include so much of the above information as is relevant to the proposal.
- (3) Where the [ERA] has published financial models under rule 75A, the access arrangement information for a full access arrangement proposal must be provided using the financial models.

...

## **77 Opening capital base**

- (1) When a pipeline first becomes a covered pipeline, or the opening capital base for a pipeline is first calculated, the opening capital base is to be as follows:
    - (a) if the pipeline was commissioned before the commencement of these rules, the opening capital base is to be determined by reference to the relevant provisions of the Gas Code;
    - (b) if the pipeline was commissioned after the commencement of these rules, the opening capital base is to be:
      - (i) the cost of construction of the pipeline and pipeline assets incurred before commissioning of the pipeline (including the cost of acquiring easements and other interests in land necessary for the establishment and operation of the pipeline);

plus:

    - (ii) the amount of capital expenditure since the commissioning of the pipeline;

less:

    - (iii) depreciation; and
    - (iv) the value of pipeline assets disposed of since the commissioning of the pipeline.
- (2) If an access arrangement period 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 rule 82, 84 or 86;

plus:

  - (c1) in relation to any existing extension specified in the extension and expansion requirements in accordance with rule 104(2), the following value:

- (i) the cost of construction of the extension;
  - plus
  - (ii) capital expenditure on the extension since construction of the extension;
  - less:
  - (iii) depreciation of the extension since the date the extension was commissioned; and
  - (iv) the value of pipeline assets constituting the extension disposed of since commissioning of the extension;
  - 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
  - Note:
  - See rule 90.
  - (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.
- (3) If a period intervenes between access arrangement periods during which the pipeline is not subject to a full access arrangement, the opening capital base for the later access arrangement period is to be:
- (a) the opening capital base determined in accordance with these rules for a notional access arrangement taking effect at the end of the access arrangement period for the last full access arrangement (the relevant date);
  - plus:
  - (b) the amount of capital expenditure since the relevant date;
  - plus:
  - (b1) in relation to any existing extension specified in the extension and expansion requirements in accordance with rule 104(2), the following value:
    - (i) the cost of construction of the extension;
    - plus
    - (ii) the amount of capital expenditure on the extension since construction of the extension;
    - less:
    - (iii) depreciation of the extension since the date the extension was commissioned; and
    - (iv) the value of pipeline assets constituting the extension disposed of since commissioning of the extension;
  - less:
  - (c) depreciation since the relevant date; and
  - (d) the value of pipeline assets disposed of since the relevant date.

**78 Projected capital base**

The projected capital base for a particular period is:

(a) the opening capital base;

plus:

(b) forecast conforming capital expenditure for the period;

less:

(c) forecast depreciation for the period; and

(d) the forecast value of pipeline assets to be disposed of in the course of the period.

**[Pre 1 February 2024 capital expenditure criteria (old expenditure rules)]****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; and

(b) the capital expenditure must be justifiable on a ground stated in subrule (2); and

(c) the capital expenditure must be for expenditure that is properly allocated in accordance with the requirements of subrule (6).

(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) Conforming capital expenditure that is included in an access arrangement revision proposal must be for expenditure that is allocated between:
- (a) reference services;
  - (b) other services provided by means of the covered pipeline; and
  - (c) other services provided by means of uncovered parts (if any) of the pipeline,
- in accordance with rule 93.

**[Post 1 February 2024 capital expenditure criteria (new expenditure rules)]**

**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 service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services in a manner consistent with the achievement of the national gas objective; and
  - (b) the capital expenditure must be justifiable on a ground stated in subrule (2); and
  - (c) the capital expenditure must be for expenditure that is properly allocated in accordance with the requirements of subrule (6).
- (2) Capital expenditure is justifiable if:
- (a) the overall economic value of the expenditure is positive, subject to subrule (3); 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
    - (v) to contribute to meeting emissions reduction targets through the supply of services; 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, consider the sum of:
    - (a) the economic value, other than of changes to Australia's greenhouse gas emissions, directly accruing to the service provider, producers, users and end users; and
    - (b) the economic value of changes to Australia's greenhouse gas emissions, whether or not that value accrues (directly or indirectly) to the service provider, producers, users or 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) Conforming capital expenditure that is included in an access arrangement revision proposal must be for expenditure that is allocated between:
    - (a) reference services;
    - (b) other services provided by means of the scheme pipeline; and
    - (c) other services provided by means of non-scheme parts (if any) of the pipeline,

in accordance with rule 93.

## **80 [ERA's] power to make advance determination with regard to future capital expenditure**

- (1) The [ERA] may, on application by a service provider, make a determination to the effect that, if capital expenditure is made in accordance with proposals made by the service provider and specified in the determination, the expenditure will meet the new capital expenditure criteria.
- (2) The [ERA] may (but is not required to) engage in public consultation before making a determination under subrule (1).
- (3) A determination under subrule (1) is binding on the [ERA] but a decision not to make such a determination creates no presumption that future expenditure will not meet the relevant criteria.

## **81 Non-conforming capital expenditure**

A service provider may make, during an access arrangement period, capital expenditure that is, in whole or in part, non-conforming capital expenditure.



**82 Capital contributions by users to new capital expenditure**

- (1) A user may make a capital contribution towards a service provider's capital expenditure.
- (2) Capital expenditure to which a user has contributed may, with the [ERA's] approval, be rolled into the capital base for a pipeline but, subject to subrule (3), not to the extent of any such capital contribution.
- (3) The [ERA] may approve the rolling of capital expenditure (including a capital contribution made by a user, or part of such a capital contribution) into the capital base for a pipeline on condition that the access arrangement contain a mechanism to prevent the service provider from benefiting, through increased revenue, from the user's contribution to the capital base.

**83 Surcharges**

- (1) When the service provider makes non-conforming capital expenditure, it may notify the [ERA] that it proposes to recover the amount, or part of the amount, of the expenditure by means of a surcharge.

Note:

A surcharge may be proposed even where the non-conforming capital expenditure has been funded in whole or part by a user.

- (2) A surcharge is a charge, approved by the [ERA], in addition to a reference tariff (or other tariff):
  - (a) to be levied on users of incremental services; and
  - (b) designed to recover non-conforming capital expenditure or a specified portion of non-conforming capital expenditure.
- (3) To the extent that non-conforming capital expenditure is, or is to be, recovered by means of the surcharge, it can never be rolled into the capital base.
- (4) The [ERA] must not approve a surcharge unless satisfied that the amount to be recovered from the surcharge does not exceed (in present value terms) the amount of the non-conforming 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.
- (5) The [ERA] may (but is not required to) engage in public consultation before approving a surcharge.
- (6) The [ERA's] approval of a surcharge is binding on an arbitrator in an access dispute.

**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.

#### **85 Capital redundancy**

- (1) A full access arrangement may include (and the [ERA] may require it to include) a mechanism to ensure that assets that cease to contribute in any way to the delivery of pipeline services (redundant assets) are removed from the capital base.
- (2) A reduction of the capital base in accordance with such a mechanism may only take effect from the commencement of the first access arrangement period to follow the inclusion of the mechanism in the access arrangement or the commencement of a later access arrangement period.
- (3) An applicable access arrangement may include a mechanism for sharing costs associated with a decline in demand for pipeline services between the service provider and users.
- (4) Before requiring or approving a mechanism under this rule, the [ERA] must take into account the uncertainty such a mechanism would cause and the effect the uncertainty would have on the service provider, users and prospective users.

#### **86 Re-use of redundant assets**

- (1) Subject to the new capital expenditure criteria, if, after the reduction of the capital base by the value of assets identified as redundant, the assets later contribute to the delivery of pipeline services, the assets may be treated as new capital expenditure of an amount calculated by taking their value as at the time of their removal from the capital base and increasing it annually at the rate of return implicit in the reference tariff.
- (2) To the extent the new capital expenditure criteria allow, the amount arrived at under subrule (1) will be returned to the capital base in accordance with those criteria.

...

#### **93 Allocation of total revenue and costs**

- (1) Total revenue is to be allocated between reference and other services in the ratio in which costs are allocated between reference and other services.
- (2) Costs are to be allocated between reference and other services as follows:
  - (a) costs directly attributable to reference services are to be allocated to those services; and
  - (b) costs directly attributable to pipeline services that are not reference services are to be allocated to those services; and
  - (c) 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].
- (3) The [ERA] may, however, permit the allocation of the costs of rebateable services, in whole or part, to reference services if:
  - (a) the [ERA] is satisfied that the service provider will apply an appropriate portion of the revenue generated from the sale of rebateable services to reduce the reference tariff in accordance with rule 97; and
  - (b) any other conditions determined by the [ERA] are satisfied.

- (4) A pipeline service is a rebateable service if:
  - (a) the service is not a reference service; and
  - (b) substantial uncertainty exists concerning the extent of the demand for the service or of the revenue to be generated from the service.