

# Access Arrangement Information for the Dampier to Bunbury Natural Gas Pipeline – 2021 to 2025

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Economic Regulation Authority

WESTERN AUSTRALIA

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## Contents

<b>Access Arrangement Information .....</b>	<b>1</b>
Overview .....	1
Interpretation.....	1
Structure and compliance.....	1
Financial information .....	3
Forecasts and estimates .....	4
<b>Expenditure and Pipeline Usage – NGR 72(1)(a) .....</b>	<b>5</b>
<b>Opening Capital Base – NGR 72(1)(b).....</b>	<b>8</b>
Conforming capital expenditure.....	9
Amounts added under rules 82, 84 and 86 .....	10
Depreciation.....	11
Redundant and disposed assets .....	11
Opening capital base .....	11
<b>Projected Capital Base – NGR 72(1)(c) .....</b>	<b>12</b>
Forecast conforming capital expenditure (NGR 72(1)(c)(i)) .....	13
Forecast of depreciation (NGR 72(1)(c)(ii)).....	14
<b>Forecast Demand – NGR 72(1)(d).....</b>	<b>17</b>
<b>Forecast Operating Expenditure – NGR 72(1)(e) .....</b>	<b>18</b>
<b>Key Performance Indicators – NGR 72(1)(f) .....</b>	<b>20</b>
<b>Rate of Return – NGR 72(1)(g) .....</b>	<b>21</b>
<b>Estimated Cost of Income Tax – NGR 72(1)(h).....</b>	<b>22</b>
Taxable income .....	23
Tax asset lives.....	23
Tax depreciation method.....	23
Tax asset base .....	24
Statutory income tax rate.....	24
Imputation credits .....	24
<b>Efficiency Gains and/or Losses – NGR 72(1)(i).....</b>	<b>25</b>
<b>Approach to Setting Tariffs – NGR 72(1)(j).....</b>	<b>26</b>
<b>Reference Tariff Variation Mechanism – NGR 72(1)(k).....</b>	<b>28</b>
Scheduled tariff variation .....	29
Tax change tariff variation .....	29
Cost pass through tariff variation.....	29
<b>Proposed Incentive Mechanism – NGR 72(1)(l) .....</b>	<b>31</b>
<b>Total Revenue – NGR 72(1)(m) .....</b>	<b>32</b>
Allocation of total revenue .....	32

**List of appendices**

**Appendix 1 List of Tables..... 34**

**Appendix 2 Abbreviations..... 35**

# Access Arrangement Information

## Overview

1. This document comprises the Access Arrangement Information (AAI) for the revised access arrangement for the Dampier to Bunbury Natural Gas Pipeline (DBNGP) that was proposed by the ERA and given effect on 1 July 2021, pursuant to rule 64(4) of the National Gas Rules (NGR).<sup>1</sup>
2. The purpose of this document is to set out the information necessary to enable users and prospective users to understand the derivation of the elements of the access arrangement for the DBNGP for the fifth access arrangement period (AA5), which covers the period from 1 January 2021 to 31 December 2025. The provision of AAI is also necessary for compliance with the NGR.
3. The DBNGP is a gas transmission pipeline that extends approximately 1,600 kilometres from Dampier to Bunbury. The pipeline connects the gas fields located in Western Australia's north-west to mining and industrial customers and to residential customers via gas distribution networks. DBNGP (WA) Transmission Pty Ltd (DBP) is the owner and operator of the pipeline and is part of the Australian Gas Infrastructure Group.

## Interpretation

4. Unless the contrary intention is expressed, words or phrases in this document have the same meaning as those defined in clause 16 (Definitions) of the revised access arrangement for the DBNGP.
5. A reference in this document to:
  - “access arrangement period” means the fifth access arrangement period or AA5 (1 January 2021 to 31 December 2025).
  - “earlier access arrangement period” or “previous access arrangement period” means the fourth access arrangement period or AA4 (1 January 2016 to 31 December 2020) which preceded the access arrangement period.
6. Where a word or phrase has not been defined in this document then, unless the contrary intention is expressed, the word or phrase is to be given the meaning prescribed in the National Gas Law, Rules or Regulations (as relevant and applicable in Western Australia).

## Structure and compliance

7. This document follows the structure of rule 72(1) of the NGR, which sets out specific requirements for the AAI relevant to revenue and price regulation (Table 1).
8. In March 2019, the Australian Energy Market Commission made a final determination to make changes to the regulatory framework for covered transmission and distribution

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<sup>1</sup> ERA, *Final decision on proposed revisions to the Dampier Bunbury Pipeline access arrangement 2021 to 2025*, 1 April 2020.

natural gas pipelines in Australia.<sup>2</sup> The specific changes to the NGR are set out in *National Gas Amendment (Regulation of covered pipelines) Rule 2019 No.1*.<sup>3</sup> One such change was the removal of rule 72(1)(f), which required the AAI to include information on the key performance indicators to be used by the service provider to support the expenditure to be incurred over the access arrangement period.

**Table 1 Requirements for access arrangement information relevant to price and revenue regulation**

National Gas Rule	Requirement for Access Arrangement Information (AAI) <sup>4</sup>
72(1)(a)	<p>If the access arrangement period commences at the end of an earlier access arrangement, AAI must include:</p> <ul style="list-style-type: none"> <li>• Capital expenditure (by asset class) and operating expenditure (by category) over the earlier access arrangement period.</li> <li>• Usage of the pipeline over the earlier access arrangement period showing: <ul style="list-style-type: none"> <li>– For a distribution pipeline: minimum, maximum and average demand and customer numbers in total and by tariff class.</li> <li>– For a transmission pipeline: minimum, maximum and average demand for each receipt or delivery point and user numbers for each receipt or delivery point.</li> </ul> </li> </ul>
72(1)(b)	AAI must include information on how the capital base is arrived at, and if the access arrangement period commences at the end of an earlier access arrangement, a demonstration of how the capital base increased or diminished over the previous period.
72(1)(c)	<p>AAI must include the projected capital base over the access arrangement period, including:</p> <ul style="list-style-type: none"> <li>• A forecast of conforming capital expenditure for the period and the basis for the forecast.</li> <li>• A forecast of depreciation for the period, including a demonstration of how the forecast is derived on the basis of the proposed depreciation method.</li> </ul>
72(1)(d)	To the extent it is practicable to forecast capacity and utilisation over the access arrangement period, AAI must include a forecast of pipeline capacity and utilisation of pipeline capacity over the period and the basis on which the forecast has been derived.
72(1)(e)	AAI must include a forecast of operating expenditure over the access arrangement period and the basis on which the forecast has been derived.
72(1)(f)	[Deleted]
72(1)(g)	AAI must include the allowed rate of return for each regulatory year of the access arrangement period.

<sup>2</sup> Australian Energy Market Commission, *Regulation of covered pipelines, Rule determination*, 14 March 2019 ([online](#)) (accessed December 2020).

<sup>3</sup> Australian Energy Market Commission, *National Gas Amendment (Regulation of covered pipelines) Rule 2019 No. 1* ([online](#)) (accessed September 2019).

<sup>4</sup> On 8 April 2019, the binding rate of return instrument came into operation in Western Australian. There were several consequential changes to the NGR. Rules 72(1)(g) and 72(1)(h) were amended and rule 72(1)(ga) was deleted. The summary in this table reflects the current wording of the rules.

National Gas Rule	Requirement for Access Arrangement Information (AAI) <sup>4</sup>
72(1)(h)	AAI must include the estimated cost of corporate income tax, calculated in accordance with rule 87A, including the allowed imputation credits referred to in that rule
72(1)(i)	If an incentive mechanism operated in the previous access arrangement period, the AAI must include the proposed carry over of increments or decrements for efficiency gains or losses, and a demonstration of how an allowance is to be made for any such increments or decrements.
72(1)(j)	AAI must include the proposed approach to setting tariffs including: <ul style="list-style-type: none"> <li>The suggested basis of reference tariffs, including the method used to allocate costs and a demonstration of the relationship between costs and tariffs.</li> <li>A description of any pricing principles employed, but not otherwise disclosed.</li> </ul>
72(1)(k)	AAI must include the service provider's rationale for any proposed reference tariff variation mechanism.
72(1)(l)	AAI must include the service provider's rationale for any proposed incentive mechanism.
72(1)(m)	AAI must include the total revenue to be derived from pipeline services for each regulatory year of the access arrangement period.

## Financial information

9. Rule 73 of the NGR specifies the basis on which financial information is to be provided.

**73 Basis on which financial information is to be provided**

- (1) Financial information must be provided on:
  - (a) a nominal basis; or
  - (b) a real basis; or
  - (c) some other recognised basis for dealing with the effects of inflation.
- (2) The basis on which financial information is provided must be stated in the access arrangement information.
- (3) All financial information must be provided, and all calculations made, consistently on the same basis.

10. Financial information in this document is provided on both a nominal and real basis. All real financial information is expressed in constant prices as at 31 December 2019.

11. Where necessary, to express financial values in dollar values of 31 December 2019, financial values prior to this date were escalated at the rate of inflation as measured by the *Consumer Price Index (All Groups, Weighted Average of Eight Capital Cities)* as published by the Australian Bureau of Statistics.

12. Financial values after 31 December 2019 are de-escalated using the rate of inflation from the weighted average cost of capital (or WACC) parameter estimates shown in Table 20.

13. Table 2 shows actual consumer price index and forecast inflation values used to provide financial information in this document.

**Table 2 Actual and forecast consumer price index and inflation rates**

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	Actual	Actual	Actual	Actual	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
December CPI	110.0	112.1	114.1	116.2	117.5	118.9	120.3	121.6	123.0	124.5
Inflation rate (%)	1.48	1.91	1.78	1.84	1.15	1.15	1.15	1.15	1.15	1.15

## Forecasts and estimates

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

**74 Forecasts and estimates**

- (1) Information in the nature of a forecast or estimate must be supported by statement of the basis of the forecast or estimate.
  - (2) A forecast of estimate:
    - (a) must be arrived at on a reasonable basis; and
    - (b) must represent the best forecast or estimate possible in the circumstances.
15. All forecasts and estimates have been arrived at on a reasonable basis and represent the best forecast or estimate possible in the circumstances.



## Expenditure and Pipeline Usage – NGR 72(1)(a)

16. If the access arrangement period commences at the end of an earlier access arrangement period, the AAI must include:

- Capital expenditure (by asset class) over the earlier access arrangement period (rule 72(1)(a)(i) of the NGR).
- Operating expenditure (by category) over the earlier access arrangement period (rule 72(1)(a)(ii) of the NGR).
- Usage of the pipeline over the earlier access arrangement period showing, for a distribution pipeline:
  - minimum, maximum and average demand (rule 72(1)(a)(iii)A of the NGR); and
  - customer numbers in total and by tariff class (rule 72(1)(a)(iii)B of the NGR).

17. The above information is shown in the following tables.

**Table 3 AA4 conforming capital expenditure by asset class (\$ million real as at 31 December 2019)**

Asset class	2016	2017	2018	2019	2020	AA4 total
Pipeline	-	-	0.09	0.01	0.23	<b>0.33</b>
Compression	2.55	4.79	2.90	1.91	2.45	<b>14.59</b>
Metering	3.50	3.67	6.92	5.40	8.27	<b>27.76</b>
Other	2.37	4.99	1.78	2.68	4.33	<b>16.14</b>
Computers and motor vehicles	3.49	2.55	3.02	2.52	5.02	<b>16.60</b>
Cathodic protection	0.88	1.58	4.93	7.37	4.26	<b>19.02</b>
SCADA, electrical, control and instrumentation and communications	5.52	6.46	2.93	6.53	6.40	<b>27.84</b>
Building	0.02	-	-	-	-	<b>0.02</b>
<b>Total</b>	<b>18.34</b>	<b>24.02</b>	<b>22.57</b>	<b>26.42</b>	<b>30.94</b>	<b>122.30</b>

**Table 4 Operating expenditure by category for AA4 (\$ million as at 31 December 2019)**

	2016	2017	2018	2019 <sup>5</sup>	2020 (forecast)
Wages and salaries	31.4	32.7	26.0	27.9	26.3
Non-field expenses	13.3	14.1	14.0	12.7	14.4
Field expenses	16.2	15.4	15.4	11.1	14.6
Government Charges	7.1	5.9	7.2	8.7	7.4
Reactive Maintenance	2.0	1.3	1.6	1.9	1.4
System Use Gas	24.6	28.2	28.5	30.8	30.3
<b>TOTAL</b>	<b>94.6</b>	<b>97.7</b>	<b>92.7</b>	<b>93.1</b>	<b>94.5</b>

Source: DBP, 2021-2025 Final Plan, Attachment 7.1: OPEX Forecast Model PUBLIC, January 2020, and DBP, 2021-2025 Revised Final Plan, Attachment 7.1A: OPEX Forecast Model (Public), October 2020.

**Table 5 Full haul (T1 Service) minimum, maximum and average demand for AA4 (TJ/day)**

	2016	2017	2018	2019	2020
Maximum	703.2	703.4	688.2	687.5	704.3
Average	601.5	596.6	604.5	622.3	627.6
Minimum	479.6	509.5	511.6	544.2	493.5

**Table 6 Part haul (P1 Service) minimum, maximum and average demand for AA4 (TJ/day)**

	2016	2017	2018	2019	2020
Maximum	168.1	182.7	175.8	166.3	287.7
Average	88.9	129.6	120.7	141.0	156.5
Average full haul equivalent basis	7.7	11.0	11.4	13.2	18.8
Minimum	67.2	72.9	84.1	70.0	86.7

<sup>5</sup> System use gas value is a forecast amount, remaining 2019 values are actual expenditure amounts

**Table 7 Back haul (B1 Service) minimum, maximum and average demand for AA4 (TJ/day)**

	2016	2017	2018	2019	2020
Maximum	209.6	215.8	233.8	300.3	263.7
Average	168.0	165.3	206.7	208.9	217.3
Average full haul equivalent basis	13.1	13.2	17.1	17.2	14.6
Minimum	91.9	115.3	101.9	101.6	91.5

**Table 8 Demand for non-reference services for AA4 (average TJ/day)**

Service	2016	2017	2018	2019	2020
Spot capacity service	0.1	0.2	1.7	1.7	4.2
Pilbara service	0.00	9.4	14.9	24.2	33.6
Other reserved service	87.9	88.8	46.1	42.6	60.2
Storage service	0.80	0.80	4.62	1.50	0.24

**Table 9 Number of shippers by inlet point for AA4**

Inlet point	Number of shippers
DDR	31
Pluto	12
MLV7 Interconnect	22
Devil Creek	28
Gorgon	27
Macedon	28
Wheatstone	24
Varanus Island	28
Mondarra	8

**Table 10 Number of shippers by tariff class for AA4**

Tariff (service) class	Number of shippers
Full Haul	8
Part Haul	18
Back Haul	18

## Opening Capital Base – NGR 72(1)(b)

18. The AAI must include how the capital base is arrived at, and if the access arrangement period commences at the end of an earlier access arrangement period, it must provide a demonstration of how the capital base increased or diminished over the previous access arrangement period.
19. The opening capital base for the access arrangement period (that is, the capital base at 1 January 2021) is determined in accordance with the formula in rule 77(2) of the NGR as follows:

### **77 Opening capital base**

...

- (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;

less:

  - (d) depreciation over the earlier access arrangement period (to be calculated in accordance with any relevant provisions of the access arrangement governing the calculation of depreciation for the purpose of establishing the opening capital base); and
  - (e) redundant assets identified during the course of the earlier access arrangement period; and
  - (f) the value of pipeline assets disposed of during the earlier access arrangement period.

20. The NGR define *conforming capital expenditure* as “capital expenditure that complies with the new capital expenditure criteria”. Rule 79 of the NGR sets out the new capital expenditure criteria.

### **79 New capital expenditure criteria**

- (1) Conforming capital expenditure is capital expenditure that conforms with the following criteria:
  - (a) the capital expenditure must be such as would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services;
  - (b) the capital expenditure must be justifiable on a ground stated in subrule (2).

- (2) Capital expenditure is justifiable if:
- (a) the overall economic value of the expenditure is positive; or
  - (b) the present value of the expected incremental revenue to be generated as a result of the expenditure exceeds the present value of the capital expenditure; or
  - (c) the capital expenditure is necessary:
    - (i) to maintain and improve the safety of services; or
    - (ii) to maintain the integrity of services; or
    - (iii) to comply with a regulatory obligation or requirement; or
    - (iv) to maintain the service provider's capacity to meet levels of demand for services existing at the time the capital expenditure is incurred (as distinct from projected demand that is dependent on an expansion of pipeline capacity); or
  - (d) the capital expenditure is an aggregate amount divisible into 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.

## Conforming capital expenditure

21. Conforming capital expenditure was assessed using the following framework:

- Determine whether the expenditure satisfies the prudent service provider criteria set out in rule 79(1) of the NGR. That is, determine whether the expenditure 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.

- Determine whether the expenditure is justifiable on one or more of the grounds set out in rule 79(2) of the NGR.
- Assess whether forecasts or estimates comply with rule 74(2) of the NGR, which requires a forecast or estimate to be arrived at on a reasonable basis and represent the best forecast or estimate possible in the circumstances.

22. Table 3 shows the conforming capital expenditure made during the earlier access arrangement period.

## Amounts added under rules 82, 84 and 86

23. Rules 82, 84 and 86 of the NGR cover provisions for capital contributions by users to new capital expenditure, the speculative capital expenditure account and the re-use of redundant assets.

### **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.

...

### **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.

...

### **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.
24. There were no amounts added to the opening capital base under rules 82, 84 or 86 of the NGR.

## Depreciation

25. The depreciation method used for calculating the depreciation on the regulatory asset base over the earlier access arrangement period was the straight-line depreciation method using the current cost accounting approach. This approach is consistent with the depreciation criteria set out in rule 89 of the NGR (see paragraph 38).

## Redundant and disposed assets

26. There were no redundant assets identified during the earlier access arrangement period.
27. There were no asset disposals during the earlier access arrangement period.

## Opening capital base

28. The opening capital base as at 1 January 2021 is \$3,331.50 million (Table 11).

**Table 11 Opening capital base at 1 January 2021 (\$ million real as at 31 December 2019)**

	2016	2017	2018	2019	2020
Opening capital base AA4	3,726.32	3,639.30	3,555.31	3,469.13	3,393.13
Plus: Conforming capital expenditure	18.34	24.02	22.57	26.42	30.94
Less: Depreciation	(105.35)	(108.01)	(108.75)	(102.42)	(92.58)
Less: Asset disposals	-	-	-	-	-
<b>Opening capital base for AA5</b>	<b>3,639.30</b>	<b>3,555.31</b>	<b>3,469.13</b>	<b>3,393.13</b>	<b>3,331.50</b>

## Projected Capital Base – NGR 72(1)(c)

29. The AAI must include the projected capital base over the access arrangement period, including:
- A forecast of conforming capital expenditure for the period and the basis for the forecast (rule 72(1)(c)(i) of the NGR).
  - A forecast of depreciation for the period, including a demonstration of how the forecast is derived based on the proposed depreciation method (rule 72(1)(c)(ii) of the NGR).
30. The projected capital base for the access arrangement period is determined in accordance with the formula in rule 78 of the NGR as follows:

### 78 Projected capital base

(1) 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.

31. The return on the projected capital base for each year of the access arrangement period is determined in accordance with the formula in rule 87 of the NGR.

### 87 Rate of return

The return on the projected capital base for a service provider for a regulatory year of an access arrangement period for an applicable access arrangement ( $RPCB_t$ ) is to be calculated using the following formula:

$$RPCB_t = a_t \times v_t$$

where:

$a_t$  is the allowed rate of return for the regulatory year; and

$v_t$  is the value, as at the beginning of the regulatory year, of the projected capital base for the regulatory year (as established under rule 78 and subject to rule 82(3)).<sup>6</sup>

32. The projected capital base for the access arrangement period is shown in Table 12.
33. No pipeline assets are expected to be disposed of during the access arrangement period.

<sup>6</sup> Rule 82(3) states: "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."



**Table 12 Projected AA5 capital base (\$ million nominal)**

	2021	2022	2023	2024	2025
Opening capital base	3,369.81	3,276.03	3,231.97	3,170.65	3,118.07
Inflation	38.75	37.67	37.17	36.46	35.86
Opening capital base (end of period)	3,408.56	3,313.70	3,269.13	3,207.11	3,153.93
Plus: Forecast capital expenditure	50.70	36.28	22.80	33.93	22.19
Less: Depreciation	(183.24)	(118.02)	(121.28)	(122.97)	(125.78)
Less: Asset disposals	-	-	-	-	-
<b>Closing capital base</b>	<b>3,276.03</b>	<b>3,231.97</b>	<b>3,170.65</b>	<b>3,118.07</b>	<b>3,050.34</b>

## Forecast conforming capital expenditure (NGR 72(1)(c)(i))

34. The NGR define *conforming capital expenditure* as “capital expenditure that complies with the new capital expenditure criteria”. Rule 79 of the NGR sets out the criteria, which is set out at paragraph 20 (above).
35. Forecast conforming capital expenditure for the access arrangement period was assessed using the following framework.
- Determine whether the expenditure satisfies the prudent service provider criteria set out in rule 79(1) of the NGR. That is, determine whether the expenditure 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.
  - Determine whether the expenditure is justifiable on one or more of the grounds set out in rule 79(2) of the NGR.
  - Assess whether forecasts or estimates comply with rule 74(2) of the NGR, which requires a forecast or estimate to be arrived at on a reasonable basis and represent the best forecast or estimate possible in the circumstances.
36. Table 13 shows the forecast conforming capital expenditure for the access arrangement period.

**Table 13 Forecast conforming capital expenditure for AA5 (\$ million real as at 31 December 2019)**

	2021	2022	2023	2024	2025	Total
Pipeline	-	-	-	-	-	-
Compression	5.03	2.40	2.96	2.76	3.17	<b>16.33</b>
Metering	1.75	1.20	1.40	1.20	1.38	<b>6.93</b>
Other	2.78	1.69	1.17	0.88	1.60	<b>8.12</b>
Computers and motor vehicles	14.97	2.92	2.38	4.72	2.73	<b>27.73</b>
Cathodic protection	3.42	2.86	3.09	2.89	1.67	<b>13.92</b>
SCADA, electrical, control and instrumentation and communications	16.56	19.04	8.53	11.38	6.56	<b>62.08</b>
Buildings	3.07	3.46	0.89	6.73	2.23	<b>16.38</b>
Cost of raising equity	1.97	1.49	1.35	1.50	1.38	<b>7.68</b>
<b>Total</b>	<b>49.56</b>	<b>35.06</b>	<b>21.78</b>	<b>32.05</b>	<b>20.72</b>	<b>159.16</b>

## Forecast of depreciation (NGR 72(1)(c)(ii))

37. Rule 88 of the NGR sets out the requirements for the depreciation schedule.

### 88 Depreciation schedule

- (1) The depreciation schedule sets out the basis on which the pipeline assets constituting the capital base are to be depreciated for the purpose of determining a reference tariff.
- (2) The depreciation schedule may consist of a number of separate schedules, each relating to a particular asset or class of assets.

38. Rules 89 and 90 of the NGR set out the depreciation criteria and requirements for the calculation of depreciation for establishing the opening capital base for the next access arrangement period.

### 89 Depreciation criteria

- (1) The depreciation schedule should be designed:
  - (a) so that reference tariffs will vary, over time, in a way that promotes efficient growth in the market for reference services; and
  - (b) so that each asset or group of assets is depreciated over the economic life of that asset or group of assets; and
  - (c) so as to allow, as far as reasonably practicable, for adjustment reflecting changes in the expected economic life of a particular asset, or a particular group of assets; and
  - (d) so that (subject to the rules about capital redundancy), an asset is depreciated only once (i.e. that the amount by which the asset is

depreciated over its economic life does not exceed the value of the asset at the time of its inclusion in the capital base (adjusted, if the accounting method approved by the [ERA] permits, for inflation)); and

- (e) so as to allow for the service provider's reasonable needs for cash flow to meet financing, non-capital and other costs.
- (2) Compliance with subrule (1)(a) may involve deferral of a substantial proportion of the depreciation, particularly where:
- (a) the present market for pipeline services is relatively immature; and
  - (b) the reference tariffs have been calculated on the assumption of significant market growth; and
  - (c) the pipeline has been designed and constructed so as to accommodate future growth in demand.
- (3) The [ERA's] discretion under this rule is limited.

**90 Calculation of depreciation for rolling forward capital base from one access arrangement period to the next**

- (1) A full access arrangement must contain provisions governing the calculation of depreciation for establishing the opening capital base for the next access arrangement period after the one to which the access arrangement currently relates.
- (2) The provisions must resolve whether depreciation of the capital base is to be based on forecast or actual capital expenditure.

39. A current cost accounting approach on a straight-line basis is used to calculate the depreciation on the regulatory asset base for the access arrangement period. The approach is consistent with the criteria under rule 89(1) of the NGR.
40. Table 14 shows the forecast of depreciation for the access arrangement period.
41. The asset lives used to calculate the forecast are shown in Table 15.

**Table 14 Forecast of depreciation for AA5 (\$ million as at 31 December 2019)**

Asset category	2021	2022	2023	2024	2025	Total
Pipeline	70.58	70.58	70.58	70.58	70.58	<b>352.90</b>
Compression	20.29	20.46	20.54	20.63	20.73	<b>102.64</b>
Metering	14.68	1.54	1.58	1.63	1.67	<b>21.11</b>
Building	0.12	0.18	0.25	0.26	0.40	<b>1.20</b>
Other depreciable	8.27	3.96	3.97	3.51	3.19	<b>22.90</b>
Computers and motor vehicles	17.04	5.62	5.69	5.56	6.00	<b>39.91</b>
Cathodic/corrosion protection	4.28	4.50	4.70	4.89	5.09	<b>23.46</b>
SCADA, electrical, control & instrumentation and communications	43.39	6.69	8.02	8.48	9.16	<b>75.75</b>
Cost of raising equity	0.00	0.05	0.09	0.13	0.16	<b>0.43</b>
BEP lease	0.45	0.45	0.45	0.45	0.45	<b>2.27</b>
Forecast depreciation	<b>179.09</b>	<b>114.04</b>	<b>115.86</b>	<b>116.14</b>	<b>117.44</b>	<b>642.57</b>

**Table 15 AA5 asset lives**

Asset categories	Economic life
Pipeline	Capped at 2063
Compression	30
Metering	30
Buildings	50
Other	10
Cathodic/corrosion protection	15
SCADA, electrical, control & instrumentation and communications	10
Computers and motor vehicles	5

## Forecast Demand – NGR 72(1)(d)

42. The AAI must include, to the extent it is practicable, a forecast of pipeline capacity and utilisation of pipeline capacity over that period and the basis on which the forecast has been derived.
43. Table 16 provides a demand forecast for non-reference services (average TJ/day) that use capacity of the pipeline over AA5.

**Table 16 Demand forecasts for non-reference services that use the capacity of the pipeline for AA5 (average TJ/d)**

	2021	2022	2023	2024	2025
Spot capacity service	4.2	4.2	4.2	4.2	4.2
Pilbara service	30.00	30.00	30.00	30.00	30.00
Other reserved service	39.00	39.00	39.00	39.00	39.00
Storage service	1.37	0.68	0.0	0.0	0.0

44. Table 17 shows the demand forecasts for reference services for AA5 (full haul equivalent TJ/d) over the access arrangement period.

**Table 17 Demand forecasts for reference services for AA5 (full haul equivalent TJ/d)**

	2021	2022	2023	2024	2025
<b>Full Haul (T1 Service)</b>					
Throughput	555.28	540.82	521.62	465.85	459.55
Contracted capacity	606.05	591.05	570.29	503.59	495.49
<b>Part Haul (P1 Service)</b>					
Throughput	17.74	17.86	19.57	34.00	36.33
Contracted capacity	25.97	25.39	26.87	41.07	43.08
<b>Back Haul (B1 Service)</b>					
Throughput	13.89	13.27	13.27	13.27	13.27
Contracted capacity	18.09	17.29	17.29	17.89	17.89
<b>Total System</b>					
Throughput	<b>586.92</b>	<b>571.95</b>	<b>554.46</b>	<b>513.12</b>	<b>509.15</b>
Contracted capacity	<b>650.11</b>	<b>633.73</b>	<b>614.45</b>	<b>562.55</b>	<b>556.47</b>

## Forecast Operating Expenditure – NGR 72(1)(e)

45. The AAI must include a forecast of operating expenditure over the access arrangement period and the basis on which the forecast has been derived.

46. Rule 91 of the NGR sets out criteria governing operating expenditure.

**91 Criteria governing operating expenditure**

(1) Operating expenditure must be such as would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of delivering pipeline services.

(2) The forecast of required operating expenditure of a pipeline service provider that is included in the full access arrangement 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.

47. Table 18 shows the forecast operating expenditure over the access arrangement period. The forecast was derived on the following basis:

- Estimates for operating expenditure were derived using the base-step-trend method. Under this method, operating expenditure forecasts were based on costs incurred in an efficient base year plus adjustments to account for unanticipated difference between the base year and the AA5 years.
- Specific yearly forecasts for 'major expenditure jobs', regulatory costs and corporate costs were calculated as the expenditure profile for these categories were not suitably captured by the base-step-trend method.

48. Table 19 shows the forecast operating expenditure over the access arrangement period by category.

**Table 18 Forecast operating expenditure for AA5 (\$ million real at 31 December 2019)**

	2021	2022	2023	2024	2025	Total AA5
Base year operating expenditure	60.90	60.90	60.90	60.90	60.90	<b>304.49</b>
Add: bottom up forecasts						
System use gas	20.39	19.56	18.40	13.74	13.10	<b>85.19</b>
GEA/turbine overhauls	8.56	7.01	7.01	1.02	2.03	<b>25.63</b>
Capital expenditure to operating expenditure	2.25	1.87	2.14	2.12	1.83	<b>10.21</b>
<b>Equals: Baseline forecast operating expenditure</b>	<b>92.10</b>	<b>89.33</b>	<b>88.45</b>	<b>77.77</b>	<b>77.87</b>	<b>425.51</b>
Add: Real labour cost escalation						
Labour Cost	0.11	0.17	0.22	0.28	0.33	<b>1.11</b>
<b>Equals: Baseline forecast operating expenditure including labour cost escalation</b>	<b>92.21</b>	<b>89.50</b>	<b>88.67</b>	<b>78.05</b>	<b>78.20</b>	<b>426.62</b>
Minus: Productivity growth factor						
Productivity factor	-	-	-	-	-	-
<b>Equals: Total operating expenditure</b>	<b>92.21</b>	<b>89.50</b>	<b>88.67</b>	<b>78.05</b>	<b>78.20</b>	<b>426.62</b>

**Table 19 Forecast operating expenditure by category for AA5 (\$ million real as at 31 December 2019)**

Category	2021	2022	2023	2024	2025	Total
Efficient base year	60.90	60.90	60.90	60.90	60.90	<b>304.49</b>
Step changes	-	-	-	-	-	-
System use gas	20.39	19.56	18.40	13.74	13.10	<b>85.19</b>
GEA/turbine overhauls	8.56	7.01	7.01	1.02	2.03	<b>25.63</b>
Capital to operating expenditure	2.25	1.87	2.14	2.12	1.83	<b>10.21</b>
Labour cost escalation	0.11	0.17	0.22	0.28	0.33	<b>1.11</b>
Productivity	-	-	-	-	-	-
<b>Total forecast operating expenditure</b>	<b>92.21</b>	<b>89.50</b>	<b>88.67</b>	<b>78.05</b>	<b>78.20</b>	<b>426.62</b>

## Key Performance Indicators – NGR 72(1)(f)

49. As stated at paragraph 8, changes to the NGR in March 2019 removed the requirement for AAI to include information on the key performance indicators to be used by the service provider to support the expenditure to be incurred over the access arrangement period.<sup>7</sup>

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<sup>7</sup> Rule 72(1)(f) was deleted from the NGR.



## Rate of Return – NGR 72(1)(g)

50. AAI must include the allowed rate of return for each regulatory year of the access arrangement period.
51. The rate of return, based on the weighted average cost of capital (or WACC), provides for a return on the regulatory asset base. The allowed rate of return is determined in accordance with the gas rate of return guidelines, which became a binding instrument in Western Australia in April 2019.
52. Table 20 shows the rate of return parameters for the access arrangement period.

**Table 20 Rate of return parameters for AA5**

Component	Value
<b>Return on debt</b>	
5-year interest rate swap (effective yield) (%)	0.295
Debt risk premium (10-year average) (%)	2.259
Debt issuing cost (0.100%) + hedging (0.114%) (%)	0.214
<b>Nominal return on debt (%)</b>	<b>2.768</b>
<b>Return on equity</b>	
Nominal risk-free rate (%)	0.29
Market risk premium (%)	6.00
Equity beta	0.7
<b>Nominal return on equity (%)</b>	<b>4.49</b>
<b>Other parameters</b>	
Debt proportion (%)	55
Inflation rate (%)	1.15
Corporate tax rate (%)	30
Franking credit	0.5
<b>Nominal after-tax WACC (%)</b>	<b>3.54</b>
Real after-tax WACC (%)	2.37

## Estimated Cost of Income Tax – NGR 72(1)(h)

53. The AAI must include the estimated cost of corporate income tax, calculated in accordance with rule 87A of the NGR, including the allowed imputation credits referred to in that rule. Rule 87A states:

**87A Estimated cost of corporate income tax**

- (1) The estimated cost of corporate income tax of a service provider for each regulatory year of an access arrangement period (ETC<sub>t</sub>) is to be estimated in accordance with the following formula:

$$ETC_t = (ETI_t \times r_t) (1 - \gamma)$$

where:

ETI<sub>t</sub> is an estimate of the taxable income for that regulatory year that would be earned by a benchmark efficient entity as a result of the provision of reference services if such an entity, rather than the service provider, operated the business of the service provider;

r<sub>t</sub> is the expected statutory income tax rate for that regulatory year as determined by the [ERA]; and

γ is the allowed imputation credits for the regulatory year.

54. Table 21 shows the estimated cost of corporate income tax for the access arrangement period.

**Table 21 Estimated cost of corporate income tax for AA5 (\$ million nominal)**

	2021	2022	2023	2024	2025
<b>Unsmoothed revenue</b>	<b>376.29</b>	<b>293.79</b>	<b>296.32</b>	<b>286.65</b>	<b>289.43</b>
<b>Expenses</b>					
- Operating expenditure, System use gas	20.86	20.24	19.26	14.55	14.03
- Operating expenditure, Other Expenses	73.49	72.38	73.56	68.10	69.72
- Tax depreciation	110.16	119.57	121.78	121.29	122.91
- Interest on debt	51.30	49.87	49.20	48.27	47.47
<b>Total tax expenses</b>	<b>255.81</b>	<b>262.07</b>	<b>263.80</b>	<b>252.20</b>	<b>254.13</b>
Estimated taxable income	120.48	31.73	32.51	34.45	35.30
Tax loss carried forward	0.00	0.00	0.00	0.00	0.00
<b>Estimated taxable income (Net of tax loss)</b>	<b>120.48</b>	<b>31.73</b>	<b>32.51</b>	<b>34.45</b>	<b>35.30</b>
Estimated cost of tax (tax rate=30 per cent)	36.14	9.52	9.75	10.34	10.59
Value of imputation credits (γ=0.5)	(18.07)	(4.76)	(4.88)	(5.17)	(5.30)
<b>Cost of corporate income tax net of imputation credits</b>	<b>18.07</b>	<b>4.76</b>	<b>4.88</b>	<b>5.17</b>	<b>5.30</b>

## Taxable income

55. Taxable income is estimated using the following method:

	Unsmoothed tariff revenue
<b>minus</b>	approved forecast operating expenditure
<b>minus</b>	depreciation of the tax asset base, calculated using the straight-line method for assets purchased before 1 January 2021 and the diminishing value method for assets purchased on or after 1 January 2021 (excluding building tax assets, which use the straight-line method)
<b>minus</b>	debt servicing costs
<b>add</b>	tax losses carried forward
<b>equals</b>	estimated taxable income

## Tax asset lives

56. The tax asset categories and respective tax lives for the access arrangement period are shown in Table 22.

**Table 22 Tax asset categories and tax lives for AA5 (years)**

Asset categories	Tax lives for capital assets purchased prior to 1 January 2021	Tax lives for capital assets purchased on or after 1 January 2021
Pipeline	20	20
Compression	20	20
Metering	15	15
Other depreciable	20	10
Computers and motor vehicles	5	5
Cathodic/corrosion protection	15	15
SCADA, electrical, control & instrumentation and communications	10	10
Building	20	40
Cost of raising equity	5	5
BEP lease	20	20

## Tax depreciation method

57. Depreciation of the tax asset base is calculated using a straight-line method for assets purchased before 1 January 2021 and the diminishing value method for assets purchased on or after 1 January 2021 (excluding building tax assets which use the straight-line method).

58. The asset category of 'maintenance bases and depots' has and will continue to be depreciated using straight-line depreciation for both existing and new assets.

## Tax asset base

59. The forecast tax asset base for the access arrangement period is shown in Table 23 and is determined using the following (roll forward) method:

Opening value at 1 January 2021

**plus** forecast capital expenditure (net of capital contributions) to be incurred in AA5

**less** depreciation based on the forecast of capital expenditure

**less** any forecast asset disposals during AA5.

**Table 23 Forecast tax asset base for AA5 (\$ million nominal)**

	2021	2022	2023	2024	2025
Opening tax asset base	947.15	887.69	804.40	705.42	618.06
Capital expenditure	50.70	36.28	22.80	33.93	22.19
Asset disposals	-	-	-	-	-
Tax depreciation	(110.16)	(119.57)	(121.78)	(121.29)	(122.91)
<b>Closing value</b>	<b>887.69</b>	<b>804.40</b>	<b>705.42</b>	<b>618.06</b>	<b>517.34</b>

60. No asset disposals are forecast for the access arrangement period.

## Statutory income tax rate

61. The expected statutory income tax ( $r_t$ ) for each regulatory year of the access arrangement period is 30 per cent.

## Imputation credits

62. As required by the gas rate of return guidelines, a value of 0.5 is used for the value of imputation credits ( $v$ ).<sup>8</sup>

<sup>8</sup> The gas rate of return guidelines became a binding instrument in Western Australia in April 2019.

## Efficiency Gains and/or Losses – NGR 72(1)(i)

63. If an incentive mechanism operated for the previous access arrangement period, the AAI must include the proposed carryover 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.
64. There was no incentive mechanism that operated in the previous (earlier) access arrangement period.

## Approach to Setting Tariffs – NGR 72(1)(j)

65. The AAI must include the proposed approach to the setting of tariffs including:
- The suggested basis of reference tariffs, including the method used to allocate costs and a demonstration of the relationship between costs and tariffs (rule 72(1)(j)(i) of the NGR).
  - A description of any pricing principles employed but not otherwise disclosed under this rule (rule 72(1)(j)(ii) of the NGR).
66. Rule 95 of the NGR sets out the requirements for determining reference tariffs for transmission pipelines.

### **95 Tariffs – transmission pipelines**

- (1) A tariff for a reference service provided by means of a transmission pipeline must be designed:
- (a) to generate from the provision of each reference service the portion of total revenue referable to that reference service; and
  - (b) as far as is practicable consistently with paragraph (a), to generate from the user, or the class of users, to which the reference service is provided, the portion of total revenue referable to providing the reference service to the particular user or class of users.
- (2) The portion of total revenue referable to a particular reference service is determined as follows:
- (a) costs directly attributable to each reference service are to be allocated to that service; and
  - (b) other costs attributable to reference services are to be allocated between them on a basis (which must be consistent with the revenue and pricing principles) determined or approved by the [ERA].
- (3) The portion of total revenue referable to providing a reference service to a particular user or class of users is determined as follows:
- (a) costs directly attributable to supplying the user or class of users are to be allocated to the relevant user or class; and
  - (b) other costs are to be allocated between the user or class of users and other users or classes of users on a basis (which must be consistent with the revenue and pricing principles) determined or approved by the [ERA].
67. Rule 96 of the NGR allows the service provider to propose a discount for a particular user or prospective user, or a particular class of users or prospective users. The ERA may approve a discount only if it is necessary to respond to competition from other providers of pipeline services or other sources of energy, or to maintain the efficient use of the pipeline. The provision of the discount must also be likely to lead to reference or equivalent tariffs being lower than they would otherwise have been.
68. The reference services and tariffs offered under the access arrangement for the DBNGP are the:
- T1 Service and T1 Tariff for full haul services
  - P1 Service and P1 Tariff for part haul services
  - B1 Service and B1 Tariff for back haul services.

69. Table 24 shows the reference tariffs that are consistent with the calculation of total revenue and the allocation of that revenue to reference services.
70. The reference tariffs will be varied based on the reference tariff variation mechanism.

**Table 24 Reference service tariffs for AA5 to commence on 1 July 2021 (\$ real as at 31 December 2019)**

Tariff component	1 July 2021
<b>Full Haul (T1)</b>	
Capacity (reservation) charge (\$/GJ/day)	1.259781
Commodity (throughput) charge (\$/GJ/day)	0.078143
<b>Total</b>	<b>1.337924</b>
<b>Part Haul (P1)</b>	
Capacity (reservation) charge (\$/GJ/day)	0.000900
Commodity (throughput) charge (\$/GJ/day)	0.000056
<b>Total</b>	<b>0.000956</b>
<b>Back Haul (B1)</b>	
Capacity (reservation) charge (\$/GJ/day)	0.000900
Commodity (throughput) charge (\$/GJ/day)	0.000056
<b>Total</b>	<b>0.000956</b>

## Reference Tariff Variation Mechanism – NGR 72(1)(k)

71. The AAI must include the service provider's rationale for any proposed reference tariff variation mechanism.
72. Rule 92 of the NGR requires the access arrangement for the DBNGP to include a reference tariff variation mechanism, which must be designed to equalise (in terms of present values) the forecast revenue from reference services over the access arrangement period and the portion of total revenue allocated to reference services for the access arrangement period.
73. Rule 97 of the NGR specifies the requirements (or mechanisms) for reference tariff variations.

### **97 Mechanics of reference tariff variation**

- (1) A reference tariff variation mechanism may provide for variation of a reference tariff:
  - (a) in accordance with a schedule of fixed tariffs; or
  - (b) in accordance with a formula set out in the access arrangement; or
  - (c) as a result of a cost pass through for a defined event (such as a cost pass through for a particular tax); or
  - (d) by the combined operation of 2 or more of the above.
- (2) A formula for variation of a reference tariff may (for example) provide for:
  - (a) variable caps on the revenue to be derived from a particular combination of reference services; or
  - (b) tariff basket price control; or
  - (c) revenue yield control; or
  - (d) a combination of all or any of the above.
- (3) In deciding whether a particular reference tariff variation mechanism is appropriate to a particular access arrangement, the [ERA] must have regard to:
  - (a) the need for efficient tariff structures; and
  - (b) the possible effects of the reference tariff variation mechanism on administrative costs of the [ERA], the service provider, and users or potential users; and
  - (c) the regulatory arrangements (if any) applicable to the relevant reference services before the commencement of the proposed reference tariff variation mechanism; and
  - (d) the desirability of consistency between regulatory arrangements for similar services (both within and beyond the relevant jurisdiction); and
  - (e) any other relevant factor.
- (4) A reference tariff variation mechanism must give the [ERA] adequate oversight or powers of approval over variation of the reference tariff.
- (5) Except as provided by a reference tariff variation mechanism, a reference tariff is not to vary during the course of an access arrangement period.



74. Clause 11 of the access arrangement for the DBNGP details the reference tariff variation mechanism that applies for the access arrangement period. The mechanism comprises:
- A scheduled variation mechanism, which provides for an annual variation of the reference tariff.
  - A tax change variation mechanism, which provides for the variation of the reference tariff in response to changes in tax.
  - A new cost pass through variation mechanism, which provides for the variation of the reference tariff in response to cost pass through events.

## Scheduled tariff variation

75. Clauses 11.2 and 11.3 of the access arrangement detail the operation of the scheduled reference tariff variation mechanism. This mechanism varies the reference tariff annually, so it more closely reflects variations in the costs that the tariff is to recover. It is intended to maintain efficient cost recovery during the access arrangement period.
76. At the commencement of each year during the access arrangement period (that is, each 1 January) the scheduled reference tariff variation mechanism:
- Adjusts the reference tariff for inflation.
  - Effects a change in the reference tariff following the annual adjustment of the return of debt.
  - Adjusts (reduces) the reference tariff to rebate a portion of the revenue generated from the sale of rebateable services.

## Tax change tariff variation

77. Clause 11.4 of the access arrangement details the operation of the tax change tariff variation mechanism. This mechanism ensures that costs resulting from tax changes that affect the provision of a reference service can be recovered through the reference tariff. It is intended to maintain efficient cost recovery during the access arrangement period.
78. If a tax change occurs, or is expected to occur, during the access arrangement period, the tax change reference tariff variation mechanism allows the DBP to vary the reference tariff to recover the financial costs of the tax change, to the extent that the costs have not already been accounted for in the reference tariff.

## Cost pass through tariff variation

79. Clause 11.5 of the access arrangement details the operation of the cost pass through tariff variation mechanism. This mechanism ensures that costs resulting from cost pass through events that affect the provision of a reference service can be recovered through the reference tariff. It is intended to maintain efficient cost recovery during the access arrangement period.
80. If one or more cost pass through events occur, or are expected to occur, during the access arrangement period, the cost pass through reference tariff variation mechanism

allows the DBP to vary the reference tariff to recover the financial costs of the cost pass through event(s), to the extent that the costs have not already been accounted for in the reference tariff.

## Proposed Incentive Mechanism – NGR 72(1)(I)

81. The AAI must include the service provider's rationale for any proposed incentive mechanism.
82. DBP proposed the E Factor scheme, an incentive mechanism, to be included in its revised access arrangement. DBP's rationale for the E Factor scheme was to provide it with time-neutral incentives to implement operating expenditure efficiency gains in each year of the access arrangement period.
83. The E Factor scheme is detailed in clause 15 of the of the access arrangement for the DBNGP.

## Total Revenue – NGR 72(1)(m)

84. The AAI must include the total revenue to be derived from pipeline services for each regulatory year of the access arrangement period.
85. Total revenue has been determined using the “building block approach” in accordance with rule 76 of the NGR.

### 76 Total revenue

Total revenue is to be determined for each regulatory year of the access arrangement period using the building block approach in which the building blocks are:

- (a) a return on the projected capital base for the year (See Divisions 4 and 5); and
  - (b) depreciation on the projected capital base for the year (See Division 6); and
  - (c) the estimated cost of corporate income tax for the year (See Division 5A); and
  - (d) increments or decrements for the year resulting from the operation of an incentive mechanism to encourage gains in efficiency (See Division 9); and
  - (e) a forecast of operating expenditure for the year (See Division 7).
86. The building blocks of total revenue for each year of the access arrangement period is shown in Table 25. There was no incentive mechanism that operated in the earlier access arrangement period. Hence, there are no increments or decrements that affect total revenue.

**Table 25 Total revenue building blocks for AA5 (\$ million nominal)**

	2021	2022	2023	2024	2025	Total
Return on capital base	119.39	116.07	114.51	112.33	110.47	<b>572.76</b>
Regulatory depreciation						
<i>Depreciation</i>	183.24	118.02	121.28	122.97	125.78	<b>671.29</b>
<i>Inflationary gain</i>	(38.75)	(37.67)	(37.17)	(36.46)	(35.86)	<b>(185.91)</b>
Operating expenditure	94.35	92.62	92.82	82.64	83.75	<b>446.18</b>
Regulatory corporate income tax						
<i>Corporate income tax</i>	36.14	9.52	9.75	10.34	10.59	<b>76.34</b>
<i>Imputation credits</i>	(18.07)	(4.76)	(4.88)	(5.17)	(5.30)	<b>(38.17)</b>
<b>Total revenue</b>	<b>376.29</b>	<b>293.79</b>	<b>296.32</b>	<b>286.65</b>	<b>289.43</b>	<b>1,542.48</b>

## Allocation of total revenue

87. The NGR require total revenue to be allocated between reference services and other services on an allocation of cost basis. Rule 93(2) of the NGR states:

**93 Allocation of total revenue and costs**

...

- (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].

88. The NGR allow some services, other than reference services, to be classified as *rebateable services*. Rule 93(4) of the NGR states that “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”.
89. Rule 93(3) of the NGR permits the allocation of the costs of rebateable services, in whole or part, to reference services if the regulator 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 of the NGR.
90. Clause 3 of the access arrangement for the DBNGP details the pipeline services that are offered by means of the pipeline and include some non-reference services that have been classified as rebateable services.
91. A ratio of 99:1 has been used to allocate total revenue between reference and non-reference services that are not rebateable services. The 99 per cent allocation to reference services includes rebateable services. That is, the revenue (and costs) of rebateable services has been allocated to reference services on the basis that the ERA is satisfied that DBP will apply an appropriate portion of the revenue generated from the sale of rebateable services to reduce the reference tariff.
92. Table 26 shows the allocated total revenue between reference and non-reference services.

**Table 26 Allocation of total revenue between reference and non-reference services for AA5 (\$ million nominal)**

	2021	2022	2023	2024	2025	Total
<b>Total revenue</b>	<b>376.29</b>	<b>293.79</b>	<b>296.32</b>	<b>286.65</b>	<b>289.43</b>	<b>1,542.48</b>
Allocation to reference services	372.74	291.06	293.55	283.93	286.68	1,527.95
Allocation to non-reference services (that are not rebateable services)	3.55	2.74	2.77	2.72	2.75	14.54

## Appendix 1 List of Tables

Table 1	Requirements for access arrangement information relevant to price and revenue regulation.....	2
Table 2	Actual and forecast consumer price index and inflation rates.....	4
Table 3	AA4 conforming capital expenditure by asset class (\$ million real as at 31 December 2019).....	5
Table 4	Operating expenditure by category for AA4 (\$ million as at 31 December 2019).....	6
Table 5	Full haul (T1 Service) minimum, maximum and average demand for AA4 (TJ/day).....	6
Table 6	Part haul (P1 Service) minimum, maximum and average demand for AA4 (TJ/day).....	6
Table 7	Back haul (B1 Service) minimum, maximum and average demand for AA4 (TJ/day).....	7
Table 8	Demand for non-reference services for AA4 (average TJ/day).....	7
Table 9	Number of shippers by inlet point for AA4.....	7
Table 10	Number of shippers by tariff class for AA4.....	7
Table 11	Opening capital base at 1 January 2021 (\$ million real as at 31 December 2019).....	11
Table 12	Projected AA5 capital base (\$ million nominal).....	13
Table 13	Forecast conforming capital expenditure for AA5 (\$ million real as at 31 December 2019).....	14
Table 14	Forecast of depreciation for AA5 (\$ million as at 31 December 2019).....	16
Table 15	AA5 asset lives.....	16
Table 16	Demand forecasts for non-reference services that use the capacity of the pipeline for AA5 (average TJ/d).....	17
Table 17	Demand forecasts for reference services for AA5 (full haul equivalent TJ/d).....	17
Table 18	Forecast operating expenditure for AA5 (\$ million real at 31 December 2019).....	19
Table 19	Forecast operating expenditure by category for AA5 (\$ million real as at 31 December 2019).....	19
Table 20	Rate of return parameters for AA5.....	21
Table 21	Estimated cost of corporate income tax for AA5 (\$ million nominal).....	22
Table 22	Tax asset categories and tax lives for AA5 (years).....	23
Table 23	Forecast tax asset base for AA5 (\$ million nominal).....	24
Table 24	Reference service tariffs for AA5 to commence on 1 July 2021 (\$ real as at 31 December 2019).....	27
Table 25	Total revenue building blocks for AA5 (\$ million nominal).....	32
Table 26	Allocation of total revenue between reference and non-reference services for AA5 (\$ million nominal).....	33

## Appendix 2 Abbreviations

AA4	fourth access arrangement period (1 January 2016 to 31 December 2020)
AA5	fifth access arrangement period (1 January 2021 to 31 December 2025)
AAI	Access Arrangement Information
DBNGP	Dampier to Bunbury Natural Gas Pipeline
DBP	DBNGP (WA) Transmission Pty Ltd
NGR	National Gas Rules