Proposed Revisions
DBNGP Access Arrangement

2016 – 2020 Access Arrangement Period

Total Revenue

Supporting Submission: 13

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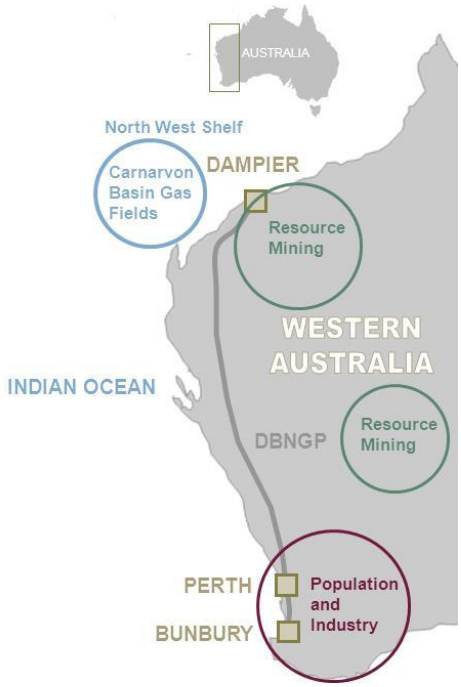
DBP Transmission (DBP) is the owner and operator of the Dampier to Bunbury Natural Gas Pipeline (DBNGP), Western Australia's most important piece of energy infrastructure.

The DBNGP is WA's key gas transmission pipeline stretching almost 1600 kilometres and linking the gas fields located in the Carnarvon Basin off the Pilbara coast with population centres and industry in the south-west of the State



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1. INTRODUCTION

1.1 On 31 December 2014, DBNGP (WA) Transmission Pty Ltd (**DBP**) filed the following documents with the Economic Regulation Authority of Western Australia (**ERA**):

(a) proposed revised Access Arrangement (**Proposed Revised AA**); and

(b) proposed revised Access Arrangement Information (**Proposed Revised AAI**).

1.2 These documents are proposed to cover the access arrangement period commencing on 1 January 2016 and ending on 31 December 2020 (**AA Period**)

1.3 These documents contain the information that the National Gas Access (WA) Act 2009 (**NGA**) (which includes the Western Australian National Gas Access Law text (**NGL**) and the National Gas Rules (**NGR**)) requires to be included in order to enable them to be approved by the ERA.

1.4 In addition to the Proposed Revised AA and Proposed Revised AAI, a number of additional supporting submissions were filed to assist the ERA in assessing the Proposed Revised AA. These included the following:

(a) Submission 1: Proposal

(b) Submission 2: Cost Controls and Governance

(c) Submission 3: Proposed Reference Service

(d) Submission 4: Terms and Conditions

(e) Submission 5: Non-tariff related issues

(f) Submission 6: Cost Verification and Allocation

(g) Submission 7: Actual Capital Expenditure (Expansion)

(h) Submission 8 Actual Capital Expenditure (Stay-in-Business) (Part 1 & 2)

(i) Submission 9: Forecast Capital Expenditure

(j) Submission 10:Forecast Operating Expenditure

(k) Submission 11: Capacity and throughput forecast

(l) Submission 12: Rate of Return

(m) Submission 13: Total Revenue

(n) Submission 14: Tariff model and tariff calculation

1.2 While DBP has made separate submissions on specific building blocks used to calculate the Total Revenue pursuant to NGR 76 (in which these submissions substantiate the methodology adopted and the values used by DBP for each relevant building block), this submission summarises the methodology adopted by DBP to calculate the Total Revenue to be derived from pipeline services for each regulatory year of the AA Period.

1.3 In particular:

(a) Section 2 outlines the statutory requirements relating to Total Revenue; and

(b) Sections 3 onwards then provide a brief overview as to how DBP has approached each of the building blocks.

2. STATUTORY REQUIREMENTS FOR TOTAL REVENUE

2.1 NGR 72(1)(m) requires the Proposed Revised AAI to include the Total Revenue to be derived from pipeline services for each regulatory year of the AA Period.

2.2 NGR 76 provides that the Total Revenue is to be determined for each regulatory year of the AA Period using the building block approach (which approach is defined in NGR 76 itself).

2.3 As outlined in the Proposed Revised AAI (see section 17), the Total Revenue for each regulatory year of the AA Period has been calculated using the building block approach described in NGR 76.

2.4 This means that the Total Revenue for each regulatory year of the AA Period has been calculated as the sum of:

(a) A return on the projected capital base for the year (inclusive of a correction for over depreciation);

(b) Depreciation on the projected capital base for the year (inclusive of a correction for inflationary gains on the projected capital base);

(c) the estimated cost of corporate income tax for the year; and

(d) A forecast of operational expenditure for the year.

2.5 The Total Revenue for each regulatory year of the Access Arrangement Period is included in Table 25 of the Proposed Revised AAI and is reproduced in Table 1 below.

Table 1: Total Revenue (Real $m at 31 December 2015)

	2016	2017	2018	2019	2020
Return on capital base	287.68	281.03	274.28	267.18	260.70
Depreciation	102.77	101.63	102.27	96.34	87.14
Less inflationary gains on the projected capital base	-70.09	-70.10	-70.87	-71.01	-71.57
Correction for over-depreciation	-3.56	0.00	0.00	0.00	0.00
Net estimated cost of corporate income tax	26.55	26.13	26.31	27.25	28.49
Operating expenditure	109.45	111.07	114.05	112.16	114.12
Total	**452.79**	**449.75**	**446.05**	**431.92**	**418.88**

2.6 It should be noted that the table above includes two line items used in the calculation of the Total Revenue that are not expressly identified as “building blocks” in NGR 76. They are:

(a) Correction for over-deprecation – this item, and the reason for accounting for this as a separate line item, are explained in more detail in paragraphs 3.16 and 3.17; and

(b) Correction of inflationary gains on the projected capital base - this item, and the reason for accounting for this as a separate line item, are explained in more detail in paragraphs 4.9 to 4.23.

2.7 By accounting for these items in Table 1 as separate line items should not be construed as meaning that DBP considers them to be building blocks of themselves.

3. RETURN ON PROJECTED CAPITAL BASE

3.1 The first building block described by NGR 76 is the return on the projected capital base for the year.

Projected capital base

3.2 The first step therefore is to establish the projected capital base. The projected capital based is established in accordance with NGR 78, which provides:

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 value of pipeline assets disposed of since the relevant date.

Opening Capital Base

3.3 In accordance with NGR 77(2) the Opening Capital Base for the AA Period (i.e. the Opening Capital Base as at 1 January 2016) has been determined by the following formula:

> *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;*
>
> (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);*
>
> *less:*
>
> (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.*

3.4 For the purposes of this submission:

(a) references in this submission to "**AA Period**" are a reference to the period from 2016 to 2020 and are to be construed as if they were the same as "later access arrangement period" used in NGR 77(2); and

(b) references to "**Prior Access Arrangement Period**" are a reference to the period from 2011 to 2016 and are to be construed as if they were the same as the term "earlier access arrangement period" used in NGR 77(2).

3.5 In relation to each of the elements used to determine the Opening Capital Base in NGR 77(2), the opening capital base at the commencement of the Prior Access Arrangement Period (**PAAP Opening Capital Base**) did not need amending for any expenditure incurred during the access arrangement period that preceded the Prior Access Arrangement Period because the PAAP Opening Capital Base was determined using only actual capital expenditure during that period (as opposed to forecast or estimated capital expenditure). Accordingly, there is no requirement to move any benefit or penalty associated with any difference between the estimated and actual capital expenditure.

3.6 The opening capital base as at the commencement of the Prior Access Arrangement Period (i.e. 1 January 2011) was **$3,805.08 million** (Real dollar values as at 31 December 2015).

3.7 The Opening Capital Base for the commencement of the AA Period has not been amended for any amounts in any of the following categories because there are no amounts during the Prior Access Arrangement Period that fall within these categories:

(a) Amounts to be added to the Capital Base under NGR 82;

(b) Amounts to be added to the Capital Base under NGR 84 ; and

(c) Amounts to be added to the Capital Base under NGR 86.

3.8 In relation to conforming capital expenditure made during the Prior Access Arrangement Period, DBP has broken down that capital expenditure into three categories:

(a) Conforming Capital Expenditure made to expand the capacity of the DBNGP;

(b) Conforming Capital Expenditure made which has been classified as Stay in Business (SIB) capital expenditure; and

(c) Capital contributions from shippers.

3.9 The sum of the Conforming Capital Expenditure from the first two categories of expenditure above is outlined in the following Table 2 (allocated into the asset categories used for the purposes of depreciation).

Table 2: Conforming Capital Expenditure (Real $m at 31 December 2015)

	2011	2012	2013	2014	2015
Expansion					
Pipeline	36.45	10.79	0.00	0.00	0.00
Compression	27.46	3.74	0.00	0.00	0.00
Metering	0.00	0.00	0.00	0.00	0.00
Other	19.93	-1.81	0.00	0.00	0.00
other non-depreciable	0.00	0.00	0.00	0.00	0.00
BEP Lease	21.26	0.00	0.00	0.00	0.00
Sub total	**105.09**	**12.73**	**0.00**	**0.00**	**0.00**
Stay-in-business					
Pipeline	13.97	4.83	4.88	0.61	4.30
Compression	5.59	5.13	5.78	3.11	10.44
Metering	0.38	1.98	0.99	1.63	2.77
Other	37.39	10.08	12.27	9.87	2.79
Other non-depreciable	-0.02	-0.04	0.20	0.00	0.00
Sub total	**57.30**	**21.98**	**24.13**	**15.21**	**20.30**
Total	**162.39**	**34.71**	**24.13**	**15.21**	**20.30**

3.10 Expenditure made during the Prior Access Arrangement Period to expand the capacity of the DBNGP is justified by DBP being Conforming Capital Expenditure justified by a separate submission (Submission 7).

3.11 Expenditure made during the Prior Access Arrangement Period and classified by DBP as SIB capital expenditure is justified by DBP being Conforming Capital Expenditure in a separate submission (Submission 8).

3.12 There are no amounts of capital contributions to be added to the Opening Capital Base.

3.13 In relation to depreciation over the Prior Access Arrangement Period, NGR 90 provides for the calculation of depreciation for rolling forward the capital base from one access arrangement period to the next. It states that a full access arrangement must contain provisions governing the calculation of deprecation and those provisions must resolve whether depreciation of the capital base is to be based on forecast or actual capital expenditure.

3.14 Section 9 of the Proposed Revised AA deals with depreciation. Paragraph 9.1(a) provides that depreciation of the capital base during the Prior Access Arrangement Period (2011 to 2015) is to be based on forecast conforming capital expenditure approved during that period.

3.15 DBP has therefore adopted the depreciation determined by the ERA in 2012 when it approved the Prior Access Arrangement's forecast conforming capital expenditure. This is outlined in Table 3.

Table 3: Depreciation 2011 to 2015 (Real $m at 31 December 2015)

	2011	2012	2013	2014	2015
Pipeline	57.51	57.86	57.92	57.98	57.99
Compression	32.57	33.92	34.16	34.24	34.34
Metering	0.91	0.92	0.93	0.99	1.05
Other	7.96	10.91	11.01	11.08	11.25
Non-depreciable	0.00	0.00	0.00	0.00	0.00
BEP Lease	0.00	0.37	0.37	0.37	0.37
Total	**98.95**	**103.98**	**104.40**	**104.67**	**105.01**

3.16 In addition, a correction has been made for over-deprecation from the Prior AA Period. This adjustment is to reflect the fact that certain assets will have been over depreciated by the end of the Prior AA Period due to the application of approved forecast depreciation and conforming capital expenditure inputs. This correction for over-depreciation:

(a) achieves consistency with the revenue and pricing principles and with NGR 89(1)(d); and

(b) has been dealt with, in the Total Revenue calculation in Table 1, as a separate line item, rather than as part of the return on the capital base line item in that table.

3.17 Strictly speaking, this is an adjustment that is made to the value of the opening capital base which (as shown above) then flows into the calculation of the projected capital base and in turn, the return on the capital base. Accordingly, it is not a requirement to include it as a separate "building block" in the Total Revenue calculation. It has however, been included as a separate line item in the Total Revenue table in the Proposed Revised AAI (see Table 25). This is because DBP has elected (consistent with the Guidelines) to use the PTRM and that model deals with it as a separate line item rather than as part of the express process of deriving the return on the capital base.

3.18 DBP does not propose to make assets redundant during the Prior Access Arrangement Period.

3.19 Table 4 provides the value of pipeline assets disposed of during the Prior Access Arrangement Period.

Table 4: Disposals 2011 to 2015 (Real $m at 31 December 2015)

	2011	2012	2013	2014	2015
Pipeline	0.00	0.00	0.00	0.00	0.00
Compression	0.08	0.00	0.00	0.00	0.00
Metering	0.00	0.00	0.00	1.69	0.00
Other	4.34	0.37	0.76	0.11	0.00
Other non-depreciable	0.00	0.00	0.00	0.00	0.00
Total	**4.42**	**0.37**	**0.76**	**1.80**	**0.00**

3.20 The following Table 5 demonstrates how the Capital Base during the Prior Access Arrangement Period changed and how the Opening Capital Base for the AA Period is calculated.

Table 5: Calculation of opening capital base (Real $m at 31 December 2015) (NGR 77(2))

Year ending 31 Dec	2011	2012	2013	2014	2015
Capital base at 1 Jan	3,805.08	3,862.99	3,792.18	3,709.93	3,617.40
Plus					
Conforming capital	162.39	34.71	24.13	15.21	20.30
Correction for over-depreciation	0.00	0.00	0.00	0.00	5.32
Less					
Redundant assets	0.00	0.00	0.00	0.00	0.00
Disposed assets	4.83	0.40	0.79	1.84	0.00
Depreciation	99.66	105.12	105.59	105.90	106.24
Capital base at 31 December	**3,862.99**	**3,792.18**	**3,709.93**	**3,617.40**	**3,536.78**
DBNGP assets					
Capital base at 1 Jan	3,775.14	3,833.75	3,764.08	3,683.02	3,591.73
Plus					
Conforming capital	162.39	34.71	24.13	15.21	20.30
Correction for over-depreciation	0.00	0.00	0.00	0.00	3.36
Less					
Redundant assets	0.00	0.00	0.00	0.00	0.00
Disposed assets	4.83	0.40	0.79	1.84	0.00
Depreciation	98.95	103.98	104.40	104.67	105.01
Capital base at 31 December	**3,833.75**	**3,764.08**	**3,683.02**	**3,591.73**	**3,510.37**
Shipper assets					
Capital base at 1 Jan	29.94	29.23	28.10	26.90	25.68
Plus					
Conforming capital	0.00	0.00	0.00	0.00	0.00
Correction for over-depreciation	0.00	0.00	0.00	0.00	1.97
Less					
Redundant assets	0.00	0.00	0.00	0.00	0.00
Disposed assets	0.00	0.00	0.00	0.00	0.00
Depreciation	0.70	1.13	1.19	1.23	1.23
Capital base at 31 December	**29.23**	**28.10**	**26.90**	**25.68**	**26.41**

Forecast conforming capital expenditure for the AA Period

3.21 In the Proposed Revised AAI, DBP has proposed the following amounts as forecast conforming capital expenditure for the AA Period.

Table 6: Forecast conforming capital expenditure (Real $m at 31 December 2015)

Forecast conforming capital expenditure (Real $m at 31 December 2015)

Year ending 31 December	2016	2017	2018	2019	2020
Expansion					
Pipeline	0.00	0.00	0.00	0.00	0.00
Compression	0.00	0.00	0.00	0.00	0.00
Metering	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00
other non-depreciable	0.00	0.00	0.00	0.00	0.00
sub total	0.00	0.00	0.00	0.00	0.00
Stay-in-business					
Pipeline	3.67	2.48	1.63	5.33	7.55
Compression	13.61	13.97	12.44	11.65	11.59
Metering	3.60	2.68	0.85	0.64	3.10
Other	2.39	2.64	2.58	1.75	2.52
Other non-depreciable	0.00	0.00	0.00	0.00	0.00
Sub total	**23.27**	**21.77**	**17.50**	**19.37**	**24.76**
Pipeline	3.67	2.48	1.63	5.33	7.55
Compression	13.61	13.97	12.44	11.65	11.59
Metering	3.60	2.68	0.85	0.64	3.10
Other	2.39	2.64	2.58	1.75	2.52
Other non-depreciable	0.00	0.00	0.00	0.00	0.00
TOTAL	**23.27**	**21.77**	**17.50**	**19.37**	**24.76**

3.22 A full justification for this forecast is contained in submission 9. However, the basis of this forecast of Conforming Capital Expenditure is:

(a) There will be no expansion of the capacity of the DBNGP during the AA Period; and

(b) No forecast capital expenditure is to be non-conforming capital expenditure.

3.23 The amounts contained in this forecast are the minimum amounts required to ensure the DBP:

(a) Maintains and improves the safety of pipeline services;

(b) Maintains the integrity of pipeline services;

(c) Complies with the regulatory obligations or requirements applicable to the DBNGP; or

(d) Maintains its capacity to meet levels of demand for pipeline services existing at the time the capital expenditure is forecast to be incurred (as distinct from projected demand that is dependent on an expansion of pipeline capacity). In this regard, the forecast demand is outlined in section 5 of the AAI.

Forecast depreciation

3.24 The basis for the derivation of the forecast of depreciation for each year of the AA Period and the amount of such forecast of depreciation are outlined in section 4.

Forecast disposals

3.25 As outlined in the Proposed Revised AA, DBP is not forecasting to dispose of any pipeline assets during the AA Period.

Resultant Projected Capital Base

3.26 Table 7 is the application of the formula, as outlined in paragraph 3.1 above, for the establishment of the Projected Capital Base for each year of the AA Period.

Table 7: Projected capital base (Real $m at 31 December 2015)

Year	2016	2017	2018	2019	2020
Capital Base (as at 1 Jan)	3,536.78	3,456.58	3,376.01	3,290.53	3,212.86
Plus					
Forecast Conforming Capital Expenditure	23.27	21.77	17.50	19.37	24.76
Less					
Forecast Depreciation	103.47	102.33	102.97	97.05	87.85
Forecast Asset Disposals	0.00	0.00	0.00	0.00	0.00
Capital base as at 31 December	**3,456.58**	**3,376.01**	**3,290.53**	**3,212.86**	**3,149.77**
DBNGP assets					
Capital base at 1 Jan	3,510.37	3,430.87	3,351.01	3,266.23	3,189.27
Plus					
Forecast Conforming Capital Expenditure	23.27	21.77	17.50	19.37	24.76
Less					
Disposed assets	0.00	0.00	0.00	0.00	0.00
Depreciation	102.77	101.63	102.27	96.34	87.14
Capital base at 31 December	**3,430.87**	**3,351.01**	**3,266.23**	**3,189.27**	**3,126.88**
Shipper assets					
Capital base at 1 Jan	26.41	25.71	25.00	24.30	23.59
Plus					
Forecast Conforming Capital Expenditure	0.00	0.00	0.00	0.00	0.00
Less					
Disposed assets	0.00	0.00	0.00	0.00	0.00
Depreciation	0.70	0.70	0.70	0.70	0.70
Capital base at 31 December	**25.71**	**25.00**	**24.30**	**23.59**	**22.89**

Rate of Return to be used to determine the Return on Projected Capital Base

3.27 The second step in determining the first of the building blocks to determine the total revenue is to establish the rate of return that is to be used to determine the level of the return on the projected capital base.

3.28 DBP has proposed a rate of return of 8.36%, being a Post-tax Nominal WACC.

3.29 Submission 12 provides the support for DBP's proposed rate of return and supplements information contained in Section 13 of the Proposed Revised AAI.

Resultant Return on Projected Capital Base

3.30 As a result of following the above processes for determining the projected capital base and the rate of return, the return on the projected capital base for each regulatory year of the AA Period is shown in the first row of Table 1.

4. DEPRECIATION

4.1 The second building block described by NGR 76 is the depreciation on the projected capital base for the year.

4.2 It is noted that the criteria for depreciation is outlined in NGR 89.

4.3 It should be noted that DBP has adopted a similar approach to the calculation of depreciation on the projected capital base as it has adopted in respect of the calculation of depreciation on the opening capital base (aside from the correction for over-depreciation referred to in paragraph 3.16).

4.4 As outlined in the Proposed Revised AA, a separate depreciation schedule has been determined for each of the 5 classes of physical assets that form the DBNGP, which are summarised in Table 8.

Table 8: Asset categories and asset lives

Asset Category	Asset life (years)
Pipeline	70
Compression	30
Metering	50
BEP Lease	57
Other	30

4.5 DBP proposes to apply the asset categories and lives provided in Table 8 to forecast conforming capital expenditure over the AA Period in order to determine the level of depreciation during the AA Period.

4.6 Furthermore, the depreciation for the AA Period on forecast Conforming Capital Expenditure for that period has been determined using the straight line method with the lives in each class of asset shown in Table 8.

4.7 Accordingly, the depreciation schedule has been designed to comply with NGR 89(1) so:

(a) that reference tariffs will vary, over time, in a way that promotes efficient growth in the market for reference services;

(b) that each asset or group of assets is depreciated over the economic life of that asset or group of assets;

(c) 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;

(d) 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 for inflation)); and

(e) as to allow for the service provider's reasonable needs for cash flow to meet financing, non-capital and other costs.

4.8 Table 9 shows the depreciation schedule for each class of assets comprising the capital base. It sets out the basis on which the pipeline assets constituting the capital base are to be depreciated for the purpose of determining each of the Reference Tariffs.

Table 9: Depreciation schedule 2016 to 2020 (Real $m at 31 December 2015)

Year ending 31 December	2016	2017	2018	2019	2020
Pipeline assets	58.63	58.68	58.71	58.74	58.81
Compression assets	34.58	35.04	35.50	29.45	20.10
Metering assets	1.05	1.13	1.18	1.20	1.21
Other depreciable assets	8.13	6.41	6.50	6.59	6.64
BEP Lease	0.37	0.37	0.37	0.37	0.37
Total	**102.77**	**101.63**	**102.27**	**96.34**	**87.14**

4.9 In calculating the Total Revenue however, a further adjustment is to be made to the amount of depreciation on the projected capital base for each year. This adjustment is required to be made as a result of:

(a) the requirement under the NGR to move from a pre-tax real approach to the calculation of the Total Revenue to a post tax nominal approach; and

(b) adopting the current cost accounting approach to accounting for the capital base and using that approach in the AER's post-tax revenue model (**PTRM**).

4.10 The following paragraphs explain the reason for the further adjustment.

4.11 The transition to a nominal approach requires an approach to depreciation that avoids the double counting of inflation.

4.12 It is noted that, in the ERA's Rate Guidelines released in December 2013 (**Guidelines**), the ERA indicated that the PTRM, or a similar model, will provide a basis for future access arrangement determinations and that there will be a number of transitional issues in moving from a real model to a nominal model[1]. It didn't elaborate on these issues in the Guidelines because they were out of scope.

4.13 DBP notes that the AER, in applying the PTRM, uses a particular method of accounting for the capital base (Current Cost Accounting – CCA) that applies indexation to the capital base and then, as a result of being a nominal model, removes an amount from depreciation that corresponds to the effect of indexing the capital base. This is how the PTRM avoids the double counting of inflation.

4.14 The AER accounts for this as one step in the calculation of the building block called the depreciation on the projected capital base. DBP is of the view that this is what is required under NGR 89(1)(d) - to ensure that "an asset is depreciated only once (ie that the amount by which the asset is depreciated over its economic life does not exceed the value of the asset at the time of its inclusion in the capital base (adjusted, if the accounting method approved by the ERA permits, for inflation))".

4.15 DBP has proposed the use of the PTRM and the adoption of the same method of accounting for the capital base – the CCA – as is used by the AER in the PTRM.

4.16 It is noted that, in ATCO Gas Australia's proposed revisions to its access arrangement filed in March 2014, while it also moved from a pre-tax real basis for calculating the Total Revenue to a post-tax nominal basis, it has not followed exactly the same approach to removing the effect of double counting of inflation as followed in the AER's application of the PTRM. While it has used a variation of the PTRM, ATCO proposed to transition to a historical costs accounting (HCA) approach to calculating the capital base with straight line depreciation of that capital base. Under HCA approach, the historic cost values are not indexed year to year for inflation.

[1] ERA Rate of Return Guidelines, December 2013, paragraph 43

4.17 DBP submits that both the use of the CCA and HCA approaches in the PTRM achieve the same objectives – ie they do not double count for inflation and comply with the criteria in NGR 89(1).

4.18 Furthermore, both deliver the same net present value of revenue over the life of a given pipeline. The key difference between them pertains to when depreciation occurs and thus how consumers bear the costs of infrastructure through time. From the standpoint of economic theory, there is little that can be said in an in-principle way about which approach is more efficient. Instead, efficiency is case-specific and related to the pattern of demand through time.

4.19 Given the limited discretion nature of NGR 89, DBP believes that any other depreciation methodology that can also be shown to meet the depreciation criteria of NGR 89, the National Gas Objective and Revenue and Pricing Principles of the NGL would also likely to be compliant methods open to service providers under the current regulatory regime.

4.20 While it is noted that the ERA, in its Draft Decision on the ATCO proposal (**ATCO Draft Decision**)[2], has not accepted the ATCO transition to the HCA approach on depreciation, more importantly (from the perspective of DBP's Proposed Revised AA), it is noted that the ERA has concluded[3] that the inflationary gain on the capital base caused by adopting a nominal approach to the calculation of the Total Revenue should not be offset from the nominal depreciation on the projected capital base.

4.21 It is not clear from the ATCO Draft Decision why the ERA has reached this latter conclusion, particularly in light of the requirement of NGR 89(1)(d).

4.22 However, given that the ERA's accounting for removing the effect of inflationary gains on the capital base (caused by adopting a nominal approach to determining the Total Revenue) has the same practical affect as how the AER's accounts for it in its application of the PTRM (ie it is included in the calculation of the building block called "depreciation of the projected capital base"), the issue is more a matter of "form over substance" than anything else.

4.23 DBP has therefore accounted for it in the Total Revenue calculation table (at Table 1) as a separate line item (like the ERA did in the ATCO Draft Decision). However, for the purposes of complying with the requirements of the NGR, it is to be treated as part of the depreciation schedule used to determine the building block called "depreciation on the projected capital base".

[2] ERA, Draft Decision on Proposed Revisions to the Access Arrangement for the Mid-West and South-West Gas Distribution System, November 2014
[3] ATCO Draft Decision, para 544

5. TAXATION

5.1 The third building block described by NGR 76 is the estimated cost of corporate income tax for each year of the AA Period.

5.2 DBP has estimated the cost of corporate income tax in accordance with NGR 72(1)(h),and NGR 87A.

5.3 Therefore DBP's estimated cost of corporate income tax for each regulatory year of an access arrangement period (ETCt) was estimated in accordance with the following formula:

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

Where

(i) ETI_t 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;

(ii) r_t is the expected statutory income tax rate for that regulatory year as determined by the AER; and

(iii) γ is the value of imputation credits.

5.4 The taxable income for each regulatory year is explained and substantiated in supporting submission 14.

5.5 The value of imputation credits is 25% (0.25), as substantiated by supporting submission 12.

5.6 The result of applying the formula above is outlined in the Table 10.

Table 10: Estimated Cost of Corporate Income Tax (Real $m 31 December 2015)

	2016	2017	2018	2019	2020
Gross estimated cost of corporate income tax	35.40	34.85	35.08	36.33	37.99
Less					
Imputation Credits	8.85	8.71	8.77	9.08	9.50
Estimated cost of corporate income tax	**26.55**	**26.13**	**26.31**	**27.25**	**28.49**

6. INCENTIVE MECHANISM

6.1 The fourth building block described by NGR 76 is to outline the increments or decrements for the year resulting from the operation of an incentive mechanism (if any) to encourage gains in efficiency.

6.2 Under NGR 98:

(a) A full access arrangement may include (and the [ERA] may require it to include) one or more incentive mechanisms to encourage efficiency in the provision of services by the service provider.

(b) An incentive mechanism may provide for carrying over increments for efficiency gains and decrements for losses of efficiency from one access arrangement period to the next.

(c) An incentive mechanism must be consistent with the revenue and pricing principles.

6.3 DBP's proposal does not to include an incentive mechanism.

6.4 However, DBP's contractual arrangements with its shippers provide extremely effective incentive mechanisms. While they are outlined in more detail in section 6 of submission 2, in summary, DBP is incentivised under its shipper contracts to ensure its capital and operating costs are at least efficient and prudent. This is done through a number of mechanisms which either expose DBP to capital and operating cost risk (for certain items of expenditure) or which require approval from the shipper before the costs can be included in charges levied under the relevant contract.

6.5 In the ERA's draft decision for the current Access Arrangement, the ERA acknowledged that the terms and conditions in the Standard Shipper Contract (SSC) that have a commercially negotiated tariff provide a commercial incentive for DBP to be prudent and efficient in its capital planning and expenditure. In fact, the ERA has noted that these incentives may be stronger than those under the regulatory framework[4]. In the AA Period, approximately 85% of DBP's revenue will be contracted with a negotiated tariff.

6.6 In light of this, DBP submits that:

(a) it is consistent with the national gas objective to not have an incentive mechanism in the Proposed Revised AA; and

(b) it is not necessary, nor should the ERA feel it appropriate, to include any specific incentive mechanism in the Proposed Revised AA.

[4] *ERA Draft Decision (May 2010) paragraph 194-197*.

7. FORECAST OPERATING EXPENDITURE

7.1 The final building block as described by NGR 76 is a forecast of operating expenditure for the year.

7.2 Under NGR 91, the criterion governing operating expenditure is that it 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.

7.3 DBP substantiation of forecast operating expenditure against the criterion is contained in supporting submission 10.

7.4 Amounts proposed to be included for the purposes of determining the total revenue are provided in Table 11.

Table 11: Forecast operating expenditure (Real $m at 31 December 2015)

	2016	2017	2018	2019	2020
Wages & salaries	29.50	30.08	30.67	31.27	31.88
Non-field expenses	15.36	15.21	15.54	16.26	17.08
Field Expenses	15.96	17.87	19.41	15.64	15.53
Government charges	8.29	8.29	8.29	8.29	8.29
Reactive maintenance	1.40	1.40	1.40	1.40	1.40
System use gas	38.93	38.22	38.74	39.30	39.94
Total	**109.45**	**111.07**	**114.05**	**112.16**	**114.12**