FINAL DECISION
Amadeus Gas Pipeline Access Arrangement 2016 to 2021

Attachment 5 – Regulatory depreciation

May 2016

AUSTRALIAN ENERGY REGULATOR

Inquiries about this publication should be addressed to:

Australian Energy Regulator
GPO Box 520
Melbourne Vic 3001

Tel: (03) 9290 1444
Fax: (03) 9290 1457

Email: AERInquiry@aer.gov.au

Note

This attachment forms part of the AER's final decision on the access arrangement for the Amadeus Gas Pipeline for 2016–21. It should be read with all other parts of the final decision.

The final decision includes the following documents:

Overview

Attachment 1 - Services covered by the access arrangement

Attachment 2 - Capital base

Attachment 3 - Rate of return

Attachment 4 - Value of imputation credits

Attachment 5 - Regulatory depreciation

Attachment 6 - Capital expenditure

Attachment 7 - Operating expenditure

Attachment 8 - Corporate income tax

Attachment 9 - Efficiency carryover mechanism

Attachment 10 - Reference tariff setting

Attachment 11 - Reference tariff variation mechanism

Attachment 12 - Non-tariff components

Attachment 13 - Demand

Contents

Shortened forms

Shortened form	Extended form
AA	Access Arrangement
AAI	Access Arrangement Information
APTNT	APT Pipelines (NT) Pty Limited (APTNT)
AER	Australian Energy Regulator
AGP	Amadeus Gas Pipeline
ATO	Australian Tax Office
capex	capital expenditure
CAPM	capital asset pricing model
CPI	consumer price index
DRP	debt risk premium
ECM	Efficiency carryover mechanism
ERP	equity risk premium
Expenditure Guideline	Expenditure Forecast Assessment Guideline
gamma	value of imputation credits
GTA	Gas Transport Services Agreement
MRP	market risk premium
NGP	Northern Gas Pipeline (formerly North East Gas Interconnector/NEGI)
NGL	National Gas Law
NGO	National Gas Objective
NGR	National Gas Rules
NPV	net present value
opex	operating expenditure
PTRM	post-tax revenue model
RBA	Reserve Bank of Australia
RFM	roll forward model
RIN	regulatory information notice
RPP	revenue and pricing principles
SLCAPM	Sharpe-Lintner capital asset pricing model
TAB	tax asset base
UAFG	unaccounted for gas

Shortened form	Extended form
WACC	weighted average cost of capital
WPI	Wage Price Index

5 Regulatory depreciation

When determining the total revenue for APTNT, we must decide on the depreciation for the projected capital base (otherwise referred to as 'return of capital').[1] Regulatory depreciation is used to model the nominal asset values over the 2016–21 access arrangement period and the depreciation allowance in the total revenue requirement.[2]

This attachment outlines our final decision on APTNT's annual regulatory depreciation allowance for the 2016–21 access arrangement period. Our consideration of specific matters that affect the estimate of regulatory depreciation is also outlined in this attachment. These include:

- the standard asset lives for depreciating new assets associated with forecast capex[3]
- the remaining asset lives for depreciating existing assets in the opening capital base.[4]

5.1 Final decision

Consistent with our draft decision, we approve the real straight-line method used by APTNT to calculate its regulatory depreciation allowance. However, we do not approve the amount of the regulatory depreciation allowance in APTNT's revised proposal for the 2016–21 access arrangement period. This is mainly because of our amendments to other components of APTNT's revised proposal discussed in other attachments; these determinations include the projected opening capital base (attachment 2), the forecast inflation (attachment 3) and the forecast capex (attachment 6). We determine a regulatory depreciation allowance of $5.7 million ($nominal) for the 2016–21 access arrangement period. This is $1.4 million (or 33.0 per cent) higher than APTNT's revised proposed amount of $4.3 million.

Consistent with our draft decision, we accept APTNT's weighted average method to calculate the remaining asset lives as at 1 July 2016. In accepting the weighted average method, we have updated APTNT's revised proposed remaining asset lives as at 1 July 2016 to reflect changes to the opening capital base arising from our decision on 2015–16 conforming capex and CPI. Also, we accept APTNT's standard asset lives assigned to each of its asset classes for the 2016–21 access arrangement period which are consistent with the draft decision.

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1 NGR, r. 76(b).

2 Regulatory depreciation allowance is the net total of the straight-line depreciation (negative) and the annual inflation indexation (positive) on the projected capital base.

3 The term 'standard asset life' is also referred to as 'standard economic life', 'asset life', 'economic asset life' or (in APTNT's proposal) 'economic life'.

4 The term 'remaining asset life' is also referred to as 'remaining economic life' or (in APTNT's proposal) 'remaining life'.

Our final decision on APTNT's regulatory depreciation allowance is set out in Table 5.1.

We have revised the access arrangement having regard to our reasons for refusing to approve APTNT's proposal and the further matters identified in the NGR section 64(2). Our revisions are reflected in the *Approved Access Arrangement for the Amadeus Gas Pipeline 1 July 2016 to 30 June 2021*, May 2016, which gives effect to this decision.

Table 5.1 AER's final decision on APTNT's regulatory depreciation allowance for the 2016–21 access arrangement period ($million, nominal)

	2016–17	2017–18	2018–19	2019–20	2020–21	Total
Straight-line depreciation	3.5	3.9	4.1	4.3	4.6	20.4
Less: indexation on capital base	2.8	2.9	3.0	3.0	3.0	14.7
Regulatory depreciation	0.8	0.9	1.1	1.3	1.5	**5.7**

Source: AER analysis.

5.2 APTNT's revised proposal

APTNT's revised proposal used the real straight-line approach approved in the draft decision to calculate the amount of annual regulatory depreciation for each asset class.

The inputs for the calculation are based on APTNT's:

- revised proposed opening capital base as at 1 July 2016
- revised proposed remaining asset lives for depreciating existing assets in the opening capital base
- revised proposed capex forecasts for the 2016–21 access arrangement period
- standard asset lives, consistent with those approved in the draft decision, for depreciating new assets associated with forecast capex. APTNT's revised proposal adopted our draft decision standard asset lives.

APTNT's revised proposed regulatory depreciation for the 2016–21 access arrangement period is set out in Table 5.2.

Table 5.2 APTNT's revised proposed regulatory depreciation for the 2016–21 access arrangement period ($million, nominal)

	2016–17	2017–18	2018–19	2019–20	2020–21	Total
Straight-line depreciation	3.6	4.1	4.4	4.6	4.8	21.5
Less: indexation on capital base	3.0	3.5	3.5	3.6	3.6	17.3
Regulatory depreciation	**0.6**	**0.6**	**0.8**	**1.0**	**1.2**	**4.3**

Source: APTNT, *Revised proposed PTRM,* January 2016.

5.3 AER's assessment approach

We have not changed our assessment approach for regulatory depreciation from our draft decision. Section 5.3 of our draft decision details that approach.

5.4 Reasons for final decision

We approve APTNT's proposed method to calculate the regulatory depreciation allowance, which is the straight-line depreciation less the annual inflation indexation on the projected capital base. However, we do not approve APTNT's revised proposed regulatory depreciation allowance of $4.3 million ($nominal) for the 2016–21 access arrangement period. Our final decision on APTNT's regulatory depreciation allowance is $5.7 million ($nominal) for the 2016–21 access arrangement period. This is an increase of $1.4 million (or 33.0 per cent) compared to APTNT's revised proposed amount. This increase is mainly because of our determinations on other components of APTNT's revised proposal which affect the calculation of the regulatory depreciation allowance.[5] These include:

- a reduction to APTNT's revised opening capital base as at 1 July 2016 of $3.7 million ($nominal) or 3.1 per cent. Our assessment of the revised proposed opening capital base is set out in attachment 2.
- a reduction to APTNT's revised forecast net capex of $13.1 million ($nominal) or 42.1 per cent. Our assessment of the revised proposed forecast capex allowance is set out in capex attachment 6.
- a reduction to APTNT's revised forecast inflation for the 2016–21 access arrangement period from 2.5 per cent per annum to 2.39 per cent per annum. Our assessment of the proposed forecast inflation is set out in the rate of return attachment 3. This results in a decrease to the indexation of the capital base component over the 2016–21 access arrangement period by $2.5 million ($nominal) or 14.5 per cent, causing a net increase in the regulatory depreciation allowance.

Consistent with our draft decision, we accept APTNT's weighted average method to calculate the remaining asset lives as at 1 July 2016. In accepting the weighted average method, we have updated APTNT's revised proposed remaining asset lives as at 1 July 2016 to reflect changes to the opening capital base arising from our decision on 2015–16 conforming capex and CPI. Also, we accept APTNT's standard asset lives assigned to each of its asset classes for the 2016–21 access arrangement period which are consistent with the draft decision.

Table 5.3 sets out our final decision on the standard and remaining asset lives as at 1 July 2016 for APTNT.

[5] NGR, rr. 88–90.

Table 5.3 AER's final decision on APTNT's standard and remaining asset lives as at 1 July 2016 (years)[a]

	Standard asset life	Remaining asset life
Pipelines	80	58.7
Compression	30	15.0
Meter station	50	36.9
SCADA	15	10.8
O&M facilities	10	8.2
Buildings	40	31.0
Land and easement	n/a	n/a

Source: AER analysis.

n/a Not applicable.

(a) The 'Return tariff payment' and 'Corporate assets (IT software)' asset classes contained in APTNT's initial proposal have been removed from our final decision. This is because they are no longer used for regulatory depreciation purposes due to no residual RAB value and no forecast capex allocated to this asset class for the 2016–21 access arrangement period.

5.4.1 Standard asset lives

In accordance with our draft decision, we accept APTNT's revised proposed standard asset lives for its existing asset classes, because they are:

- consistent with our approved standard asset lives for the 2011–16 access arrangement period
- comparable with the standard asset lives approved in our recent determinations for other gas transmission service providers.[6]

In our draft decision we created a 'Land and easement' asset class for APTNT's forecast land capex in the 2016–21 access arrangement period, which was not assigned a standard asset life as land assets do not depreciate. APTNT's revised proposal adopted our draft decision for this new asset class.[7]

We are satisfied the revised proposed standard asset lives reflect the requirements of rule 89(1) of the NGR.

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6 For example, AER*: APT Petroleum Pipeline Pty Ltd access arrangement final decision Roma to Brisbane pipeline,* August 2012, p.117; *AER: Access arrangement final decision APA GasNet Australia (Operations) Pty Ltd 2013–17 Part 2: Attachments,* March 2013, p.101.

7 APTNT, *Amadeus Gas Pipeline Access Arrangement Revised Proposal - Access Arrangement Information,* January 2016, p. 9

Table 5.3 sets out our final decision on the standard asset lives for APTNT over the 2016–21 access arrangement period.

5.4.2 Remaining asset lives

Consistent with our draft decision, we accept APTNT's proposed weighted average method to calculate the remaining asset lives as at 1 July 2016. The revised proposed method is consistent with our preferred approach as discussed in attachment 5 of our draft decision. In accepting the weighted average method, we have updated APTNT's revised proposed remaining asset lives as at 1 July 2016 to reflect changes to the opening capital base arising from our decision on 2015–16 conforming capex and CPI.

In our draft decision, we updated the average remaining asset lives for each asset class because we corrected several inputs used in APTNT's calculation. APTNT's revised proposal adopted our draft decision input corrections and updated the average remaining asset lives accordingly.

We noted in our draft decision that the remaining asset lives would be updated for the final decision because APTNT's revised proposal may include revisions for 2015–16 estimated capex. This is because the capex estimate is used to calculate the closing capital base as at 30 June 2016, which affects the calculation of remaining asset lives under the weighted average method. As discussed in attachment 6, we have not accepted the revised proposed 2015–16 capex estimate. We have therefore updated the remaining asset lives to reflect this decision.

Table 5.3 sets out our final decision on the remaining asset lives as at 1 July 2016 for APTNT.