



DRAFT DECISION
Amadeus Gas Pipeline
Access Arrangement

2021 to 2026

Attachment 8
Efficiency carryover
mechanism

November 2020

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AER reference: 65198

Note

This attachment forms part of the AER's draft decision on the access arrangement that will apply to APT Pipelines (NT) Pty Ltd (APTNT)'s Amadeus Gas Pipeline for the 2021–2026 access arrangement period. It should be read with all other parts of the draft decision.

The draft 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 – Regulatory depreciation

Attachment 5 – Capital expenditure

Attachment 6 – Operating expenditure

Attachment 7 – Corporate income tax

Attachment 8 – Efficiency carryover mechanism

Attachment 9 – Reference tariff setting

Attachment 10 – Reference tariff variation mechanism

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8 Efficiency carryover mechanism

An efficiency carryover mechanism (ECM) is intended to provide a continuous incentive for service providers to pursue efficiency improvements in operating expenditure (opex), and provide for a fair sharing of these between service providers and network users.

This attachment sets out our draft decision on the ECM carryover amounts accrued over the 2016–21 access arrangement period, and the ECM we will apply in the 2021–26 period.

8.1 Draft decision

8.1.1 ECM carryover amounts

Our draft decision is to approve carryover amounts totalling \$6.2 million (\$2020–21) from the application of the ECM in the 2016–21 access arrangement period. This is \$3.4m (\$2020–21) more than the proposal APTNT submitted to us in July 2020, which was \$2.8 million (\$2020–21).¹

Our calculated carryover amounts differ from APTNT's carryover amounts because we:

- amended the ECM formula to be consistent with the use of 2017–18 as the opex base year
- adjusted forecast opex to reflect the adjusted capitalisation policy
- used updated inflation figures to convert amounts into 2020–21 dollars.

We set out our draft decision on the carryover amounts APTNT accrued from the operation of the ECM during the 2016–21 access arrangement period in Table 8.1.

Table 8.1 AER's draft decision on APTNT's carryover amounts (\$million, 2020–21)

	2021–22	2022–23	2023–24	2024–25	2025–26	Total
APTNT's proposed carryover (as at 8 October 2019)	1.3	1.9	–0.7	0.2	0.0	2.8
AER's draft decision	2.0	2.5	0.0	0.9	0.8	6.2
Difference	0.7	0.6	0.7	0.6	0.8	3.4

Source: APTNT, *Amadeus Gas Pipeline 2021-26 Access Arrangement – Reset RIN Workbook 3 – ECM*, July 2020.

Note: Numbers may not add up due to rounding.

¹ APTNT, *Amadeus Gas Pipeline 2021-26 Access Arrangement – Reset RIN Workbook 1 – Forecast*, July 2020.

8.1.2 Application of the ECM for the 2021–26 period

Our draft decision is to approve the application of an ECM to APTNT in the 2021–26 access arrangement period, subject to minor amendments that we discuss in section 8.4.2 below. Our revisions to APTNT’s proposed ECM are set out in section 8.5.

In applying the ECM to APTNT in the 2021–26 period, consistent with APTNT’s proposal, we will exclude:

- debt raising costs and pigging costs
- cost categories that are not forecast using a single year revealed cost approach in the access arrangement period commencing on 1 July 2026
- any cost that we determine, as part of a decision on revisions to apply to this Access Arrangement, to exclude from the operation of the efficiency carryover mechanism because we are satisfied it would not promote the National Gas Objective.

We have revised APTNT’s proposed opex incentive mechanism to reflect amendments to the efficiency benefit sharing scheme (EBSS) we released in November 2013 for electricity service providers.² Importantly, the amendments will give APTNT flexibility in the choice of base year it uses to forecast opex in the following period.

We set out in Table 8.2 the forecast opex we will use to calculate efficiency gains and losses for the 2021–26 period, including forecast debt raising costs.

Table 8.2 AER’s draft decision on APTNT’s forecast opex for the ECM for the 2021–26 access arrangement period (\$million, 2020–21)

	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26
Total forecast opex	15.1	12.9	13.4	9.6	9.7	9.7	9.4	9.4
Less debt raising costs	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Less capitalisation policy change	0.0	-0.4	-0.4	0.0	0.0	0.0	0.0	0.0
Forecast opex for the ECM	15.0	12.4	12.9	9.5	9.7	9.6	9.4	9.4

Source: AER, *Amadeus Gas Pipeline draft decision - Post tax revenue model*, November 2020; AER analysis.

Note: Numbers may not add up due to rounding.

² AER, *Efficiency Benefit Sharing Scheme for Electricity Network Service Providers*, November 2013, pp. 7–9.

8.2 APTNT's proposal

8.2.1 Carryover amounts from the 2016–21 period

In its initial proposal, APTNT calculated carryover amounts totalling \$2.8 million (\$2020–21) from the application of the ECM in the 2016–21 access arrangement period.³

8.2.2 Application in the 2021–26 period

APTNT proposed the same opex incentive mechanism would apply to it in the 2021–26 access arrangement period as applied in the current period.

8.2.3 Stakeholder submissions

We have not received any submissions from stakeholders on APTNT's 2021–26 proposal which raised issues on the ECM.

8.3 Assessment approach

An ECM is a form of incentive mechanism. A full access arrangement may include (and we may require it to include) one or more incentive mechanisms to encourage efficiency in the provision of services by the service provider.⁴ An incentive mechanism must be consistent with the revenue and pricing principles.⁵

We consider the following revenue and pricing principle is most relevant for assessing APTNT's proposed efficiency carryover mechanism:

A service provider should be provided with effective incentives in order to promote economic efficiency with respect to reference services the service provider provides.

The economic efficiency that should be promoted includes:

- (a) efficient investment in, or in connection with, a pipeline with which the service provider provides reference services
- (b) the efficient provision of pipeline services
- (c) the efficient use of the pipeline.⁶

8.3.1 Interrelationships

The ECM is intrinsically linked to our opex revealed cost forecasting approach.

³ APTNT, *Amadeus Gas Pipeline 2021-26 Access Arrangement – Reset RIN Workbook 1 – Forecast*, July 2020.

⁴ NGR, r. 98(1).

⁵ NGR, r. 98(3).

⁶ NGL, s. 24(3).

Our opex forecasting method typically relies on using the 'revealed costs' of the service provider in a chosen base year to develop a total opex forecast if the chosen base year opex is not considered to be 'materially inefficient'. Under this approach, a service provider would have an incentive to spend more opex in the expected base year. Also, a service provider would have less incentive to reduce opex towards the end of the access arrangement period, where the benefit of any efficiency gains is retained for less time.

The application of the ECM serves two important functions:

1. It removes the incentive for a service provider to inflate opex in the expected base year in order to gain a higher opex forecast for the next access arrangement period.
2. It provides a continuous incentive for a service provider to pursue efficiency improvements across the access arrangement period.

The ECM does this by allowing a service provider to retain efficiency gains (or losses) for a total of six years, regardless of the year in which the service provider makes them. Where we do not propose to rely on the single year revealed costs of a service provider in forecasting opex, this has consequences for the service provider's incentives and our decision on how we apply the ECM.

When a business makes an incremental efficiency gain, it receives a reward through the ECM, and consumers benefit through a lower revealed cost forecast for the subsequent access arrangement period. This is how efficiency improvements are shared between consumers and the business. If we subject costs to the ECM that are not forecast using a revealed cost approach, a business would in theory receive a reward for efficiency gains through the ECM (at a cost to consumers), but consumers would not benefit through a lower revealed cost forecast in the subsequent access arrangement period. Therefore, we typically exclude costs that we do not forecast using a single year revealed cost forecasting approach.

For these reasons, our decision on how we will apply the ECM has a strong interrelationship with our decision on a business' opex (see Attachment 6). We have careful regard to the effect of our ECM decision when making our opex decision, and our ECM decision is made largely in consequence of (and takes careful account of) our past and current decisions on opex.

8.4 Reasons for draft decision

8.4.1 Carryover amounts from the 2016–21 period

Our draft decision is to approve carryover amounts totalling \$6.2 million (\$2020–21) from the application of the ECM in the 2016–21 access arrangement period.

The carryover amounts we calculated (\$6.2 million, \$2020–21) is higher than the carryover amounts APTNT proposed (\$2.8 million, \$2020–21). The difference is primarily driven by the selection of the base year and the capitalisation of lease costs.

ECM Formula

APTNT's Amadeus Gas Pipeline access arrangement specifies that actual opex for 2020–21 should be estimated based on the assumption it will underspend forecast opex by the same amount it underspent opex in 2019–20.⁷ Due to the interrelationship between opex and the ECM, the year used should be the same as the opex base year. This ensures that the efficiency gains for which APTNT is rewarded are also passed on to customers through forecast opex. However, APTNT used 2017–18 as the base year to forecast opex and we have accepted the opex forecast proposed by APTNT (see Attachment 6).

We considered that it would be simpler to amend the ECM formula in APTNT's current access arrangement to allow the use of the second year as the base year rather than requiring APTNT to resubmit its proposal using 2019–20 as the base year. Making this change increased total ECM carryovers by \$3.2m (2020–21).⁸ We note that although using 2017–18 as the base year increases ECM carryovers it would also result in a lower opex forecast.⁹

We outlined this approach to APTNT and it agreed with our proposed way forward.¹⁰

We have also amended this formula in APTNT's proposed ECM for its 2021–26 access arrangement to address this issue going forward. This will bring it in line with the current version of the EBSS¹¹ and will allow APTNT flexibility to use the year which is selected to be the opex base year when calculating ECM carryovers in the following period.

Lease capitalisation

APTNT proposed, under the new accounting standard AASB 16, to treat leases as capex rather than opex. In APTNT's proposal, it removed lease costs (\$0.4 million, \$2020–21) from its 2017–18 base year for the purpose of calculating its opex forecast for the 2021–26 regulatory control period.¹² However, APTNT did not amend the ECM to account for the revised forecast opex amount.¹³

Section 8.1(j) of the Amadeus Gas Pipeline Access Arrangement states that:

Where the Service Provider changes its approach to classifying costs as either capital expenditure or operating expenditure during the Access Arrangement

⁷ AER, *Access Arrangement for the Amadeus Gas Pipeline*, May 2016, p. 34.

⁸ APTNT, *Amadeus Gas Pipeline 2021-26 Access Arrangement – Reset RIN Workbook 3 – ECM*, July 2020; AER analysis.

⁹ APTNT, *Amadeus Gas Pipeline 2021-26 Access Arrangement – Attachment 5 – Operating Expenditure Model*, July 2020; AER analysis.

¹⁰ APTNT, *Response to Information Request 003 – Efficiency Carryover Mechanism*, 7 October 2020.

¹¹ AER, *Efficiency Benefit Sharing Scheme for Electricity Network Service Providers*, November 2013.

¹² APTNT, *Amadeus Gas Pipeline 2021-26 Access Arrangement – Attachment 5 – Operating Expenditure Model*, July 2020.

¹³ APTNT, *Amadeus Gas Pipeline 2021-26 Access Arrangement – Reset RIN Workbook 1 – Forecast*, July 2020.

Period, the Service Provider will adjust the forecast operating expenditure in the Access Arrangement so that the forecast expenditures are consistent with the capitalisation policy changes.¹⁴

Consistent with the Amadeus Gas Pipeline Access Arrangement, we have reduced forecast operating expenditure by \$0.4 million (\$2020–21) in years 2019–20 and 2020–21 to account for the classification change. Our adjustment is slightly higher than the value proposed by APTNT as we have used lease costs incurred in the base year (2017–18). APTNT proposed to use revealed lease costs in 2018–19.¹⁵

Making this change increased total ECM carryovers by \$0.4 million (2020–21).

Inflation

We have used different inflation figures for 2019–20 and 2020–21. For 2019–20 we used the actual CPI figure published by the Australian Bureau of Statistics (ABS).¹⁶ For 2020–21 we used the latest inflation forecast published by the Reserve Bank of Australia's (RBA) available at the time of our assessment.¹⁷ Both of these were published after APTNT submitted its proposal.

8.4.2 Application in the 2021–26 period

Our draft decision is to approve the application of an ECM to APTNT in the 2021–26 access arrangement period.

We have made minor amendments to APTNT's proposed ECM in this draft decision to be consistent with version 2 of the EBSS for electricity service providers and other gas distribution business' equivalent incentive mechanisms.¹⁸ In particular, we have revised the formula for calculating the incremental gain for 2021–22 to reflect that 2017–18 was used as the base year to forecast opex for the 2021–26 period. We have revised the formula for estimating actual opex for 2025–26 to provide flexibility in the choice of the base year that will be used to forecast opex for the period commencing in July 2026. We have also not excluded pigging costs in the operation of the ECM. We have set out our revisions to APTNT's proposed ECM in section 8.5.

Pigging Costs

We have deleted clause 8.1(h)(i) because we consider it unnecessary. If we were to exclude pigging costs it would be because we do not forecast them for the access arrangement period commencing on 1 July 2026 using a single year revealed cost approach. Any such costs are excluded under clause 8.1(h)(ii)(1).

¹⁴ AER, *Access Arrangement for the Amadeus Gas Pipeline*, May 2016, p. 34.

¹⁵ APTNT, *Amadeus Gas Pipeline 2021-26 Access Arrangement – Attachment 5 – Operating Expenditure Model*, July 2020.

¹⁶ ABS, *Catalogue number 6401.0, Consumer price index*, June 2020.

¹⁷ RBA, *Statement on monetary policy, Appendix: Forecasts*, August 2020.

¹⁸ AER, *Efficiency benefit sharing scheme for electricity network service providers*, November 2013.

However, we note that although pigging costs in the current period have been volatile, costs for the 2021–26 period are forecast to be relatively stable.¹⁹ Furthermore, opex in the current access arrangement period is more stable when pigging costs are included. Given these considerations, there may be no basis to forecast pigging costs on a category specific basis for the access arrangement period commencing on 1 July 2026.

Length of carryover period

To ensure continuous incentives, the length of the carryover period for the 2021–26 access arrangement period will be the same as the length of the following access arrangement period. We expect the next access arrangement period on the Amadeus Gas Pipeline will be five years, starting from 1 July 2026.

Adjustments to forecast or actual opex when calculating carryover amounts

In applying the ECM to APTNT in the 2021–26 access arrangement period, consistent with APTNT’s proposal, we will exclude:

- debt raising costs
- cost categories that are not forecast using a single year revealed cost approach in the access arrangement period commencing on 1 July 2026
- any cost that we determine, as part of a decision on revisions to apply to this Access Arrangement, to exclude from the operation of the efficiency carryover mechanism because we are satisfied it would not promote the National Gas Objective.

8.5 Revisions

To be consistent with our opex draft decision and reflect our selection of 2017–18 as the base year for our opex forecast, we require the following revisions to APTNT’s proposed ECM:

¹⁹ APTNT, *Amadeus Gas Pipeline 2021-26 Access Arrangement – Attachment 5 – Operating Expenditure Model*, July 2020.

Table 8.3 APTNT's ECM revisions

Revision	Amendment
Revision 8.1	<p>Amend clause 8.1(c) so that it reads:</p> <p>The incremental efficiency gain (or loss) for the Financial Year 2021–22 will be calculated as:</p> $(F_{2021-22} - A_{2021-22}) - [(F_{2020-21} - A_{2020-21}) - (F_{2017-18} - A_{2017-18})]$ <p>where:</p> <p>$F_{2020-21}$ is the forecast operating expenditure for Financial Year 2021–22; $A_{2020-21}$ is the actual operating expenditure for Financial Year 2021–22; $F_{2019-20}$ is the forecast operating expenditure for Financial Year 2020–21; $A_{2019-20}$ is the actual operating expenditure for Financial Year 2020–21; $F_{2017-18}$ is the forecast operating expenditure for Financial Year 2017–18; and $A_{2017-18}$ is the actual operating expenditure for Financial Year 2017–18.</p>
Revision 8.2	<p>Amend clause 8.1(e) so that it reads:</p> <p>The incremental efficiency gain (or loss) for Financial Year 2025–26 will be calculated as:</p> $(F_{2025-26} - A_{2025-26}^*) - (F_{2024-25} - A_{2024-25})$ <p>where actual operating expenditure in the Financial Year 2025–26 is to be estimated using the following equation:</p> $A_{2025-26}^* = F_{2025-26} - (F_b - A_b) + \text{non - recurrent efficiency gain}_b$ <p>and where:</p> <p>$A_{2025-26}^*$ is the estimate of operating expenditure for Financial Year 2025–26; $F_{2025-26}$ is the forecast operating expenditure for Financial Year 2025–26; F_b is the forecast operating expenditure for the base year used to forecast operating expenditure in the access arrangement period commencing 1 July 2026; A_b is the actual operating expenditure for the base year used to forecast operating expenditure in the access arrangement period commencing 1 July 2026; and <i>non - recurrent efficiency gain_b</i> is the adjustment made to A_b used to forecast operating expenditure in the access arrangement period commencing 1 July 2026 to account for operating expenditure associated with one-off factors.</p>
Revision 8.3	Delete clauses 8.1(f)(i) and 8.1(f)(ii)
Revision 8.4	Delete clause 8.1(h)(i)

Shortened forms

Shortened form	Extended form
ABS	Australian Bureau of Statistics
AER	Australian Energy Regulator
AGP	Amadeus Gas Pipeline
APTNT	APT Petroleum Pipelines Northern Territory
CPI	Consumer Price Index
EBSS	efficiency benefit sharing scheme
ECM	Efficiency carryover mechanism
opex	Operating expenditure
RBA	Reserve Bank Australia
UAG	Unaccounted for gas