



**DRAFT DECISION
APA VTS Australia
Gas access arrangement
2018 to 2022**

**Attachment 9 – Opex incentive
mechanism**

July 2017

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Note

This attachment forms part of the AER's draft decision on the access arrangement for APA VTS Australia for 2018-22. 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 - Value of imputation credits

Attachment 5 - Regulatory depreciation

Attachment 6 - Capital expenditure

Attachment 7 - Operating expenditure

Attachment 8 - Corporate income tax

Attachment 9 - Opex incentive mechanism

Attachment 10 - Reference tariff setting

Attachment 11 - Reference tariff variation mechanism

Attachment 12 - Non-tariff components

Attachment 13 - Demand

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Shortened forms

Shortened form	Extended form
AER	Australian Energy Regulator
ATO	Australian Tax Office
capex	capital expenditure
CAPM	capital asset pricing model
CPI	consumer price index
DRP	debt risk premium
ECM	(Opex) Efficiency Carryover Mechanism
ERP	equity risk premium
Expenditure Guideline	Expenditure Forecast Assessment Guideline
gamma	Value of Imputation Credits
MRP	market risk premium
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
STTM	Short Term Trading Market
TAB	Tax asset base
UAFG	Unaccounted for gas
WACC	weighted average cost of capital
WPI	Wage Price Index

9 Opex incentive mechanism

An opex incentive mechanism provides an additional incentive for service providers to pursue efficiency improvements in operating expenditure (opex). It is often used in incentive regulation.

To encourage a service provider to become more efficient, it is allowed to keep any difference between its approved opex forecast and its actual opex in an access arrangement period. This is supplemented by the opex incentive mechanism, which provides that the service provider benefits from efficiency gains or is penalised by efficiency losses over a longer period. In total these rewards and penalties work together to provide a continuous incentive for a service provider to pursue efficiency gains over the access arrangement period. The opex incentive mechanism also discourages a service provider from inflating its opex in the expected base year for the following access arrangement period because this could lead to higher forecast opex for that period.

Consumers benefit from any efficiency gains made by the service provider as we base our opex forecast for the next access arrangement period on the service provider's lower revealed opex. This is how efficiency improvements are shared between consumers and the business.

An opex incentive mechanism applied to APA during the 2013–17 access arrangement period. It proposed an opex incentive mechanism apply to it in the 2018–22 access arrangement period.

9.1 Draft decision

Our draft decision is to approve a benefit sharing allowance of \$17.1 million (\$2017) from the application of the opex incentive mechanism in the 2013–17 access arrangement period. This is \$1.5 million (\$2017) lower than APA's proposal. The difference is mainly due to an adjustment APA made to its opex forecast. APA adjusted its opex forecast to account for opex associated with extensions and expansions that were not included in its capital expenditure forecast for the 2013–17 period.¹ We consider the costs APA identified were not additional opex associated with extensions and expansions undertaken in the 2013–17 access arrangement period. APA incorrectly added allowances for linepack and spares inventories instead.

¹ Under its access arrangement for 2013–17 (clause 8.2(f)(iii)), APA may adjust its opex forecast to include additional operating and maintenance costs associated with Extensions and Expansions beyond its forecast capital expenditure for 2013 – 2017 and which are included in its capital base at the commencement of the forthcoming access arrangement period. APA did not demonstrate it incurred such costs.

Our draft decision on the carryover amounts from the 2013–17 access arrangement period is set out in Table 9.1.²

Table 9.1 Our draft decision on APA's benefit sharing allowance (\$ million, 2017)

	2018	2019	2020	2021	2022	Total
APA's proposed benefit sharing allowance	8.4	4.6	3.5	2.1	–	18.6
Draft decision	6.9	4.5	3.6	2.1	–	17.1
Difference	–1.5	–0.1	0.1	0.0	–	–1.5

Source: APA VTS Australia, *Access arrangement submission 2018–22 (initial proposal)*, January 2017, p.208; AER analysis.

Note: Numbers may not add up due to rounding.

We have amended APA's proposed opex incentive mechanism to reflect improvements included in the efficiency benefit sharing scheme (EBSS) we released in November 2013 for electricity service providers.³ Importantly, the amendments will give APA flexibility in the choice of base year it uses to forecast opex in the following period. We have also reduced the number of cost categories we will exclude from the mechanism.

Table 9.2 sets out our draft decision on the forecast opex amounts we will use to calculate efficiency gains and losses in the 2018–22 access arrangement period. We will update these amounts in our final decision to reflect our final decision on forecast opex. These amounts are also subject to adjustments permitted by the opex incentive mechanism.

Table 9.2 Approved forecast opex for the opex incentive mechanism (\$ million, 2017)

	2016	2017	2018	2019	2020	2021	2022
Approved forecast opex	25.2	26.3	25.7	25.7	25.7	26.7	26.9

Note: Excludes debt raising costs and allowances for linepack and spares.

9.2 APA's proposal

9.2.1 Benefit sharing allowance from the 2013–17 access arrangement period

² If the base year used to forecast opex changes in the revised proposal or final decision, it is likely our calculation of the carryover amount will change.

³ AER, *Efficiency Benefit Sharing Scheme for Electricity Network Service Providers*, November 2013, pp. 7–9.

APA proposed a benefit sharing allowance of \$18.6 million (\$2017) be added to its revenue in the 2018–22 access arrangement period.⁴

9.2.2 Application of the opex incentive mechanism in the 2018–22 access arrangement period

APA proposed the same opex incentive mechanism would apply to it in the 2018–22 access arrangement period as applied in the current period.

9.3 Our assessment approach

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.⁵ An incentive mechanism must be consistent with the revenue and pricing principles.⁶

We consider the following revenue and pricing principle is most relevant for assessing APA's proposed opex incentive mechanism.⁷

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; and
- (b) the efficient provision of pipeline services; and
- (c) the efficient use of the pipeline.

Under the NGR we have full discretion in our decision as to whether to apply an incentive scheme.⁸

9.3.1 Interrelationships

The opex incentive mechanism is intrinsically linked to our opex revealed cost forecasting approach. Under our revealed cost forecasting approach we base our forecast on a service provider's audited actual opex in a single year. When we assess a service provider's proposed benefit sharing allowance, we have regard to whether it is consistent with its proposed approach to forecast opex for the following period.

⁴ APA VTS, *Access Arrangement Submission 2018–22*, January 2017, p. 208.

⁵ NGR, r. 98(1).

⁶ NGR, r. 98(3).

⁷ NGL, s. 24(3).

⁸ NGR, r. 40(3).

9.4 Reasons for draft decision

9.4.1 Benefit sharing allowance from the 2013–17 access arrangement period

We consider APA should receive a benefit sharing allowance of \$17.1 million (\$2017) from the application of the opex incentive mechanism during the 2013–17 access arrangement period.

The benefit sharing allowance we calculated (\$17.1 million, \$2017) is lower than the allowance APA proposed (\$18.6 million, \$2017). The difference is primarily because APA incorrectly added the allowance it received for linepack and spares to the forecast opex it used to calculate the benefit sharing allowance. We removed this from the benefit sharing allowance calculations.

As noted by APA, its current access arrangement sets out the opex amounts we should use to calculate the benefit sharing allowance. Importantly these amounts do not include debt raising costs and the allowance it received for its inventory of linepack and spares.⁹

The current access arrangement also provides that APA may adjust its approved opex forecast to include additional operating and maintenance costs associated with un-forecast extensions and expansions.¹⁰ However, in calculating the forecast opex for benefit sharing allowance purposes, APA added the allowance it received for its inventory of linepack and spares as opex associated with extensions and expansions. We did not include this adjustment in our draft decision because the costs APA identified were not additional opex associated with extensions and expansions undertaken in the 2013–17 access arrangement period.

9.4.2 The opex incentive mechanism to apply in the 2018–22 access arrangement period

We approve the application of an opex incentive mechanism to APA in the 2018–22 access arrangement.

An opex incentive mechanism will provide APA with a continuous incentive to pursue efficiency gains during the 2018–22 access arrangement period. It will also provide APA with an incentive not to increase its reported opex in the expected base year, given we typically rely on reported opex in a single year to forecast opex.

⁹ APA VTS, *Access Arrangement Submission 2018–22*, January 2017, pp. 207–208.

¹⁰ AER, *APA GasNet access arrangement*, 29 April 2013, Clause 8.2(f)(iii).

Under its access arrangement for 2013–17, APA may adjust its opex forecast to include additional operating and maintenance costs associated with Extensions and Expansions beyond its forecast capital expenditure for 2013 – 2017 and which are included in its capital base at the commencement of the forthcoming access arrangement period. APA did not demonstrate it incurred such costs.

We have not approved the inclusion of the opex incentive mechanism as a fixed principle. While the incentive mechanism is included as a fixed principle in APA's current access arrangement, it did not provide any reason why the mechanism should be included as a fixed principle. The mechanism itself is designed to ensure that any reward or penalty will be carried over, in accordance with the scheme's provisions. This approach will also bring APA into line with other access arrangements.

We have amended APA's proposed efficiency carryover mechanism to reflect improvements included in the efficiency benefit sharing scheme (EBSS) we released in November 2013 for electricity service providers.¹¹ The amendments will give APA flexibility in the choice of base year it uses to forecast opex in the following period. We have also reduced the number of cost categories we will exclude from the mechanism.

The EBSS is consistent with the revenue pricing principles and we designed it taking into account the interactions with our revealed opex forecasting approach.

We will not adjust forecast opex for operating and maintenance costs associated with extensions and expansions that were not included in APA's capex allowance. In this way, these costs will be shared between APA and consumers in the same way as any efficiency gain or loss. We see no reason why these costs should be shared differently to any other efficiency gain or loss.

For the following access arrangement period, expected to commence 1 January 2023, certain categories may not be included in forecast opex using a single year revealed cost forecasting method. This could be at an overall level or category level. For example, a service provider may use a bottom up forecasting approach or use industry benchmarks. Service providers may have a number of reasons to propose alternative forecasting approaches. However, the benefit sharing allowance may not share efficiency gains consistently when a single year revealed cost approach is not used to forecast opex. If such an approach is not used, there is a risk the benefit sharing allowance may provide windfall gains or losses to a service provider. For this reason we will exclude from the actual opex amounts used to calculate the benefit sharing allowance, any cost category that is not forecast using a single year revealed cost approach in the following access arrangement period.

We also require the forecast opex amounts used to calculate the benefit sharing allowance reflect any capitalisation policy changes. This will ensure that APA is not rewarded or penalised for opex changes due entirely to change in APA's capitalisation policy.

9.5 Revisions

We require the following revisions to make the access arrangement proposal acceptable:

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

Revision 9.1: Remove clause 8.2 of the proposed access arrangement.

Revision 9.2: Remove clause 3.6 of the proposed access arrangement and replace it with the following text:

3.6 Opex incentive mechanism

- (a) In each of the first five years after 2022, the Reference Tariffs must be determined in a manner that includes, in addition to all other amounts required or permitted under the Rules or Service Provider's Access Arrangement, a benefit sharing allowance calculated in accordance with this section.
- (b) The benefit sharing allowance (B_t) in each year (t) is equal to the sum of the efficiency gains (E_t) in selected prior years, as given in the following table:

Year (t)	B_t
2023	$E_{2018} + E_{2019} + E_{2020} + E_{2021} + E_{2022}$
2024	$E_{2019} + E_{2020} + E_{2021} + E_{2022}$
2025	$E_{2020} + E_{2021} + E_{2022}$
2026	$E_{2021} + E_{2022}$
2027	E_{2022}

- (c) The efficiency gain for 2018 is to be calculated in accordance with the following formula:

$$E_{2018} = (F_{2018} - A_{2018}) - (F_{2017} - A_{2017}) + (F_{2016} - A_{2016})$$

where:

E_{2018} is the Service Provider's efficiency gain in 2018

F_{2018} is the Service Provider's forecast operating costs for 2018 as specified in section 3.6(h)

A_{2018} is the Service Provider's actual operating costs for 2018 as specified in section 3.6(g)

F_{2017} is the Service Provider's forecast operating costs for 2017 as specified in section 3.6(h)

A_{2017} is the Service Provider's actual operating costs for 2017 as specified in section 3.6(g)

F_{2016} is the Service Provider's forecast operating costs for 2016 as specified in section 3.6(h)

A_{2016} is the Service Provider's actual operating costs for 2016 as

specified in section 3.6(g).

- (d) The efficiency gains or losses (E_t) for each of 2019, 2020, 2021 and 2022 are calculated in accordance with the following formula:

$$E_t = (F_t - A_t) - (F_{t-1} - A_{t-1})$$

where:

F_t is the Service Provider's forecast operating costs for year (t) as specified in section 3.6(h)

A_t is the Service Provider's actual operating costs for year (t) as specified in section 3.6(g)

F_{t-1} is the Service Provider's forecast operating costs for the year prior to year (t) as specified in section 3.6(h)

A_{t-1} is the Service Provider's actual operating costs for the year prior to year (t) as specified in section 3.6(g)

- (e) Actual operating expenditure in 2022 is to be estimated using:

$$A_{2022}^* = F_{2022} - (F_b - A_b) + \text{non-recurrent efficiency gain}_b$$

where

A_{2022}^* is the estimate of opex for the final year of the access arrangement. -

F_{2022} is the forecast opex for the final year of the access arrangement period.

F_b is the forecast opex for the base year used to forecast opex in the access arrangement period following this access arrangement as specified in section 3.6(h)

A_b is the actual opex for the base year used to forecast opex in the access arrangement period following this access arrangement as specified in section 3.6(g)

Non-recurrent efficiency gain_b is the adjustment made to base year opex used to forecast opex for the access arrangement period expected to commence 1 January 2023 to account for opex associated with one-off factors.

- (f) To ensure efficiency gains or losses made in 2022 are retained for five years, opex for the access arrangement period commencing on 1 January 2023 should be forecast in a manner consistent with the estimate for opex in 2022, A_{2022}^* , in paragraph (e) above. This provides the Service Provider the same reward had the expenditure level in 2022 been known.
- (g) In each case, the Service Provider's actual operating costs for any year must:
- i. be determined using the same cost categories and method used to calculate the approved forecast opex as specified in section 3.6(h);
 - ii. be determined without adjustments for volume;

- iii. exclude any cost category that is not forecast using a single year revealed cost approach in the access arrangement period following this Access Arrangement Period (intended to commence 1 January 2023). These costs to be excluded may include debt raising costs.
- (h) The Service Provider's forecast operating costs for any year, are equal to:
- i. the forecast operating costs for that year as shown in the table below; plus
 - ii. the aggregate of all costs associated with a Cost Pass-through Event with respect to that year; plus or minus
 - iii. any adjustment required so that the forecast expenditures are consistent with any capitalisation policy changes, where APA changes its approach to classifying costs as either capital expenditure or operating expenditure during the access arrangement period.

Approved forecast opex for the opex incentive mechanism (\$ million, 2017)

	2016	2017	2018	2019	2020	2021	2022
Approved forecast opex	25.2	26.3	25.7	25.7	25.7	26.7	26.9

Note: Excludes debt raising costs.

- (i) If there is a change in APA's approach to classifying costs as either capital expenditure or operating expenditure, APA must provide to the AER a detailed description of the change and a calculation of its impact on forecast and actual operating expenditure.
- (j) For the purposes of calculating the benefit sharing allowance (B_t) in the years 2023 to 2027, the actual and forecast operating costs in 2018 to 2022 must be in real dollars. The price indices used in this calculation are to be consistent with those used to forecast opex for the access arrangement period following this Access Arrangement Period (expected to commence 1 January 2023).

Revision 9.2: In section 4.7 of the proposed access arrangement, remove the number 8.2 and replace it with the number 3.6.