FINAL DECISION
ActewAGL Distribution
Access Arrangement
2016 to 2021

Attachment 9 – Efficiency carryover mechanism

May 2016

AUSTRALIAN
ENERGY
REGULATOR

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Note

This attachment forms part of the AER's final decision on the access arrangement for ActewAGL Distribution 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

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Attachment 11 - Reference tariff variation mechanism

Attachment 12 - Non-tariff components

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Contents

Shortened forms

Shortened form	Extended form
AA	Access Arrangement
AAI	Access Arrangement Information
AER	Australian Energy Regulator
ASA	Asset Services Agreement
ATO	Australian Tax Office
capex	capital expenditure
CAPM	capital asset pricing model
CCP	Consumer Challenge Panel
CMF	construction management fee
CPI	consumer price index
DAMS	Distribution Asset Management Services
DRP	debt risk premium
EBSS	Efficiency Benefit Sharing Scheme
ECM	Efficiency Carryover Mechanism
EIL	Energy Industry Levy
ERP	equity risk premium
Expenditure Guideline	Expenditure Forecast Assessment Guideline
gamma	value of imputation credits
GSL	Guaranteed Service Level
GTA	Gas Transport Services Agreement
ICRC	Independent Competition and Regulatory Commission
MRP	market risk premium
NECF	National Energy Customer Framework
NERL	National Energy Retail Law
NERR	National Energy Retail Rules
NGL	National Gas Law
NGO	National Gas Objective
NGR	National Gas Rules
NPV	net present value
opex	operating expenditure

Shortened form	Extended form
PFP	partial factor productivity
PPI	partial performance indicators
PTRM	post-tax revenue model
RBA	Reserve Bank of Australia
RFM	roll forward model
RIN	regulatory information notice
RoLR	retailer of last resort
RSA	Reference Service Agreement
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
UNFT	Utilities Network Facilities Tax
WACC	weighted average cost of capital
WPI	Wage Price Index

9 Efficiency carryover mechanism

The efficiency carryover mechanism provides an additional incentive for service providers to pursue efficiency improvements in operating expenditure (opex).

To encourage a service provider to become more efficient during the access arrangement period it is allowed to keep any difference between its approved forecast and its actual opex during an access arrangement period. This is supplemented by the efficiency carryover mechanism which provides the service provider with an additional reward for reductions in opex and additional penalties for increases in opex.

Together, these rewards and penalties work to provide a continuous incentive for a service provider to pursue efficiency gains over the access arrangement period. The efficiency carryover mechanism also discourages a service provider from incurring opex in the expected base year in order to receive a higher opex allowance in the following access arrangement period.

An efficiency carryover mechanism applied to ActewAGL during the 2010–15 access arrangement period.[1] ActewAGL proposed that an efficiency carryover mechanism apply in the 2016–21 access arrangement period.

9.1 Final decision

9.1.1 Carryover amounts from the 2010-15 period

Our final decision is that ActewAGL should receive a carryover of -$7.2 million ($2015-16) in the revenue building blocks for the 2016–21 access arrangement period and –$0.4 million ($2015-16) for the 2015–16 regulatory year. This brings the total carryover amount included in the revenue building blocks to -$7.6 million ($2015-16) from the application of the efficiency carryover mechanism in the 2010–15 access arrangement period. Our decision is shown in Table 9.1.

Table 9.1 Final decision on carryover amounts from the 2010–15 period

	2015–16	2016–17	2017–18	2018–19	2019–20	2020–21	Total
Final decision	-0.4	1.8	-1.8	-3.1	-4.2	0.0	-7.6
ActewAGL proposed carryover	-0.4	1.8	-1.2	-2.2	-4.2	0.0	-6.2

Source: AER analysis; ActewAGL Distribution, *Revised 2016-21 access arrangement proposal - Appendix 9.02 Revised proposed Efficiency Carryover Mechanism*, January 2016.

1 This mechanism was based on version one of the efficiency benefit sharing scheme that applied to electricity distribution network service providers, which we published in June 2008.

9.1.2 Incentive mechanism proposed for the 2016-21 period

Our final decision is to apply an efficiency carryover mechanism to ActewAGL in the 2016-21 access arrangement period. The mechanism we apply is the same mechanism outlined in our draft decision. It is consistent with version two of the Efficiency Benefit Sharing Scheme (EBSS) which we published for electricity distributors in November 2013. It does not incorporate the changes proposed by ActewAGL in its response to the draft decision.

We have revised the access arrangement having regard to our reasons for refusing to approve ActewAGL's proposal and the further matters identified in Rule 64(2) of the NGR. Our revisions are reflected in sections 3.7 and 5.1 of the Approved Access Arrangement for ActewAGL's Gas Distribution Network in the ACT for 2016-21, which gives effect to this decision.

9.2 ActewAGL’s revised proposal

9.2.1 Carryover amounts from the 2010–15 period

In its response to the draft decision, ActewAGL accepted the general approach to calculating the carryover amounts we outlined in our draft decision but made the following changes in calculating the carryover amounts:

1. It replaced estimated opex numbers for the 2014–15 base year with actual information which became available after its initial proposal was submitted.
2. It reversed the 2014–15 actual cost pass through amount. This was because this cost pass through for carbon price changes was subsequently returned to customers.
3. It revised the 2015–16 estimated inflation rate from 2.5 per cent to 2.19 per cent.

ActewAGL's revised treatment of incremental gains (losses) to calculate carryover amount calculations is outlined in Table 9.2.

Table 9.2 ActewAGL's carryover amount calculations ($million, 2015-16)

Opex	10–11	11–12	12–13	13–14	14–15	15–16	16–17	17–18	18–19	19–20	20–21	Total
Benchmark	18.4	20.9	21.6	21.6	20.9	n/a						
Actual opex	26.6	28.4	27.6	26.1	28.6	n/a						
Excluded opex costs	6.0	8.4	7.9	8.4	7.3	n/a						
Actual opex subject to mechanism	20.6	20.0	19.8	17.8	21.2	n/a						
Underspend	-2.2	0.9	1.9	3.8	-0.4	n/a						
Incremental gain (loss)	-2.2	3.0	1.0	2.0	-4.2	0.0						
Carryover												
2015–16		-2.2	-2.2	-2.2	-2.2	-2.2						
2016–17			3.0	3.0	3.0	3.0	3.0					
2017–18				1.0	1.0	1.0	1.0	1.0				
2018–19					2.0	2.0	2.0	2.0	2.0			
2019–20						-4.2	-4.2	-4.2	-4.2	-4.2		
2020–21							0.0	0.0	0.0	0.0	0.0	
Efficiency carryover						-0.4	1.8	-1.2	-2.2	-4.2	0.0	-6.2
PTRM input						-0.4	1.8	-1.2	-2.2	-4.2	0.0	-6.2

Source: AER analysis; ActewAGL Distribution, *Revised 2016-21 access arrangement proposal - Appendix 9.02 Revised proposed Efficiency Carryover Mechanism*, January 2016.

9.2.2 Incentive mechanism proposed for the 2016-21 period

In its response to the draft decision, ActewAGL accepted some, but not all of the revisions to the efficiency carryover mechanism contained in our draft decision. In particular, it maintained that a number of cost categories should be specifically excluded from the operation of the ECM.

Table 9.3 outlines the revisions we made in our draft decision together with ActewAGL's response.

Table 9.3 ActewAGL's response to the AER's draft decision

AER revisions in our draft decision	ActewAGL's response to draft decision
Streamlined and removed some cost categories excluded from the operation of the efficiency carryover mechanism and amended allowable adjustments to forecast opex.	Accepted some but not all AER changes. Where ActewAGL did not accept the AER's revisions, it has reinserted its initial position.
Applied the year two formula to calculate the incremental efficiency gain (loss) in 2016-17 (year one), reflecting that we did not agree to close the mechanism in 2015-16 and restart it in 2016-17.	Accepted AER changes
Removed provisions that outlined how the efficiency carryover mechanism would operate should a subsequent interval of delay take place.	Accepted AER changes
Did not accept that the principles in the ECM are fixed principles and requested justification from ActewAGL on why they should be considered fixed principles.	ActewAGL retained the fixed principle clause with some modifications. It did not provide reasons for why certain principles should be fixed.

Source: AER, *Draft decision ActewAGL Distribution Access Arrangement 2016-21 - Attachment 9 - Efficiency carryover mechanism*, November 2015; ActewAGL Distribution, *Response to the AER's draft decision - 2016-21 ACT, Queanbeyan and Palerang Gas Network Access Arrangement*, 6 January 2016, p. 94.

Table 9.4 details the cost categories that ActewAGL initially proposed be excluded from the ECM as well as adjustments that ActewAGL requested be included in the mechanism. These are outlined together with our draft decision and ActewAGL's response to the draft decision.

Table 9.4 ActewAGL's response to our draft decision exclusions and adjustments for the 2016-21 incentive mechanism

ActewAGL's initial proposal	AER draft decision	ActewAGL response
Exclusions		
Debt raising costs	Accept the category should be excluded, but noted this cost would be already be excluded as it is captured by a general exclusion clause.	Not accepted; initial position reinserted.
Insurance	Not accepted	AER draft decision accepted
Superannuation	Not accepted	AER draft decision accepted
Non-controllable costs: • Government levies and taxes • Licence fees • Unaccounted for gas • Carbon costs.	Accepted the categories should be excluded, but noted all these cost categories would already be excluded as they are captured by a general exclusion clause.	Not accepted; initial position reinserted.
Costs approved by the relevant regulator as a cost beyond the control of ActewAGL.	Not accepted	Not accepted; modified clause inserted.
Costs not forecast using a single year revealed cost approach in the 2021 access arrangement period.	Accepted, noting this clause covers a number of cost categories specifically identified by ActewAGL for exclusion.	AER draft decision accepted.
Costs the regulator determines should be excluded because it would not promote the National Gas Objective.	Accepted the cost category should be excluded, with some minor changes.	AER draft decision accepted.
Adjustments		
Forecast opex adjusted for:		
• Changes in scope	Not accepted	AER draft decision accepted.
• Difference between actual and forecast number of connections	Not accepted	Not accepted; initial position reinserted.
• Change in capitalisation policy	Accepted	AER draft decision accepted.
Actual opex adjusted for determined pass through amounts	Not accepted; this clause was modified to reflect our preference that forecast opex (rather than actual opex) be adjusted to include pass through amounts and other regulator approved cost pass through events.	AER draft decision accepted

Source: AER, *Draft decision ActewAGL Distribution Access Arrangement 2016-21 - Attachment 9 - Efficiency carryover mechanism*, November 2015; ActewAGL Distribution, *Response to the AER's draft decision - 2016-21 ACT, Queanbeyan and Palerang Gas Network Access Arrangement*, 6 January 2016, p. 95.

9.3 AER's assessment approach

An efficiency carryover mechanism 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.[2] Incentive mechanisms may provide for carryover increments for efficiency gains, or decrements for efficiency losses, from one access arrangement period to the next.[3] An incentive mechanism must be consistent with the revenue and pricing principles.[4]

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

> 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.[5]

Under the NGR we have full discretion in our decision as to whether to apply an incentive scheme.[6]

9.3.1 Interrelationships

The efficiency carryover mechanism we apply to opex is intrinsically linked to a revealed cost forecasting approach for opex. Under this forecasting approach, the efficiency carryover mechanism has the following functions:

- to provide a continuous incentive for a service provider to make efficiency gains (service providers receive the same reward for an underspend and the same penalty for an overspend in each year of the access arrangement period)
- to mitigate the incentive for a service provider to increase opex in the expected 'base year' to increase its forecast opex allowance for the following access arrangement period.

2 NGR, r. 98(1).
3 NGR, r. 98 (2).
4 NGR, r. 98 (3).
5 NGL, s. 24(3).
6 NGR, r. 40(3).

9.4 Reasons for final decision

9.4.1 Carryover amounts from the 2010–15 period

Our final decision is to carryover a total amount of -$7.6 million ($2015–16) to the revenue building blocks from the application of the efficiency carryover mechanism in the 2010–15 access arrangement. This includes a carryover of -$7.2 million ($2015-16) to 2016–21 and -$0.4 million ($2015–16) to 2015–16. Our decision is shown in Table 9.5.

Table 9.5 Final decision on carryover amounts from the 2010–15 period

	2015–16	2016–17	2017–18	2018–19	2019–20	2020–21	Total
Final decision	-0.4	1.8	-1.8	-3.1	-4.2	0.0	-7.6
ActewAGL proposed carryover	-0.4	1.8	-1.2	-2.2	-4.2	0.0	-6.2

Source: AER analysis; ActewAGL Distribution, *Revised 2016-21 access arrangement proposal - Appendix 9.02 Revised proposed Efficiency Carryover Mechanism*, January 2016.

In our final decision, we have accepted ActewAGL's amendments to our draft decision.[7] In addition, we have revised the actual total opex amounts in the years 2010–11 to 2013–14 to be consistent with the data contained in ActewAGL's regulatory information notice.[8] This change accounts for the difference in our final carryover amounts and those proposed by ActewAGL in its revised proposal. Our calculations are in Table 9.6.

7 We note that ActewAGL did not make the corresponding adjustment for this proposed cost in its ECM carryover calculations for its revised proposal. However, as we do not accept this adjustment in our final decision, no adjustment to our ECM carryover calculations is required.

8 ActewAGL, *2016-21 Gas Reset RIN*, July 2015, spreadsheet 23.1 Operating expenditure including RPM.

Table 9.6 AER's carryover amount calculations ($million, 2015-16)

Opex	10–11	11–12	12–13	13–14	14–15	15–16	16–17	17–18	18–19	19–20	20–21	Total
Benchmark	18.4	20.9	21.6	21.6	20.9	n/a						
Actual opex	26.6	27.8	26.8	26.1	28.6	n/a						
Excluded opex costs	6.0	8.4	7.9	8.4	7.3	n/a						
Actual opex subject to mechanism	20.6	19.5	18.9	17.8	21.2	n/a						
Underspend	-2.1	1.4	2.7	3.8	-0.4	n/a						
Incremental gain (loss)	-2.1	3.5	1.3	1.1	-4.2	0.0						
Carryover												
2015–16		-2.1	-2.1	-2.1	-2.1	-2.1						
2016–17			3.5	3.5	3.5	3.5	3.5					
2017–18				1.3	1.3	1.3	1.3	1.3				
2018–19					1.1	1.1	1.1	1.1	1.1			
2019–20						-4.2	-4.2	-4.2	-4.2	-4.2		
2020–21							0.0	0.0	0.0	0.0	0.0	
Efficiency carryover						-0.4	1.8	-1.8	-3.1	-4.2	0.0	-7.6
PTRM input						-0.4	1.8	-1.8	-3.1	-4.2	0.0	-7.6

Source: AER analysis.

9.4.2 Incentive mechanism proposed for the 2016-21 period

Our final decision is to apply an efficiency carryover mechanism to ActewAGL in the 2016–21 access arrangement period. The mechanism we apply is the same mechanism included in our draft decision and is consistent with the Efficiency Benefit Sharing Scheme (EBSS) we published for electricity distributors in November 2013. It does not incorporate the changes proposed by ActewAGL in its response to the draft decision.

While ActewAGL accepted most of the revisions to the efficiency carryover mechanism contained in our draft decision, it has not accepted all of them. The following section sets out those aspects of our draft decision that ActewAGL did not accept and our final decision on them.

Debt raising costs

The ECM is designed to work in conjunction with our single year revealed cost approach of forecasting opex. In our draft decision, we agreed that debt raising costs should be excluded from the ECM as such costs are forecast using a benchmark approach and not using a single year revealed cost approach. As a result, it is not appropriate that debt raising costs are included in the mechanism.

Our draft decision noted that the debt raising cost category would already be excluded from the efficiency carryover mechanism by the general exclusion clause which excludes all costs not forecast using a single year revealed cost approach.

In its revised access arrangement, ActewAGL has reinserted the specific clause excluding debt raising costs (clause 3.7(b)(iii)) stating that the exclusion was approved by the AER in its JGN 2015–20 access arrangement decision.[9]

Our final decision is not to include a specific clause that excludes debt raising costs from the operation of the efficiency carryover mechanism. We note that not including a specific clause will provide the same outcome as that being sought by ActewAGL. While we acknowledge that a clause was in the JGN access arrangement, we do not consider that a compelling argument has been put forward by ActewAGL for the inclusion of a specific exclusion clause in relation to debt raising costs.

Non-controllable costs

Relevant taxes, licences, carbon costs, UAG

ActewAGL's revised access arrangement reinserts specific exclusions for UAG, licence costs, carbon costs and relevant taxes. ActewAGL noted that the 2015–20 JGN access arrangement contained analogous exclusions.[10]

In our draft decision we indicated that "we accept the cost of any relevant government levies and taxes, unaccounted for gas costs, licence fees and carbon costs should excluded from the operation of the efficiency carryover mechanism".[11] We also noted that the cost categories would already be excluded from the efficiency carryover mechanism. This is because these categories would be covered by the clause excluding costs not forecast using a single revealed cost approach in the subsequent access arrangement period.[12] As such we considered that there was no need to

9 ActewAGL Distribution, *Response to the AER's draft decision - 2016-21 ACT, Queanbeyan and Palerang Gas Network Access Arrangement*, 6 January 2016, p. 95.

10 ActewAGL Distribution, *Response to the AER's draft decision - 2016-21 ACT, Queanbeyan and Palerang Gas Network Access Arrangement*, 6 January 2016, p. 95.

11 AER, *Draft decision ActewAGL Distribution Access Arrangement 2016-21 - Attachment 9 - Efficiency carryover mechanism*, November 2015, p. 18.

12 This was clause 3.7(b)(vii)(A) in the revised access arrangement submitted by ActewAGL in January 2016 and was clause 3.8(b)(iv)(A) in the draft access arrangement submitted in June 2015.

include specific exclusions that would be covered by a general exclusion and therefore we removed them.

Our final decision is not to include specific clauses that exclude UAG, licence costs, carbon costs and relevant taxes. While we acknowledge that a clause was in the JGN access arrangement, we do not consider that a compelling argument has been put forward by ActewAGL for the inclusion of the specific exclusions.

Costs approved by the regulator as a cost beyond the control of ActewAGL

In its revised access arrangement, ActewAGL inserted a clause (3.7(b)(vi)) to exclude from operation of the incentive mechanism "other specific uncontrollable costs incurred and reported by ActewAGL during the 2016 Access Arrangement Period, which the Relevant Regulator considers should be excluded in accordance with the NGL and NGR". This clause is a modification of a clause removed as part of our draft decision.

We do not accept that costs which are 'non-controllable' costs approved by the relevant regulator as a cost which is beyond the control of ActewAGL should be excluded from the efficiency carryover mechanism for the same reasons as contained in our draft decision.[13] When opex is forecast, it takes into account expected changes (increases and decreases) in costs that are outside the control of ActewAGL. The risk that the forecasts are too high or low is symmetrical. We consider these risks should be shared between ActewAGL and its customers through the operation of the efficiency carryover mechanism in the same way other forecasting risks are shared.

Adjusting forecast opex for changes in demand when calculating carryovers

In our draft decision we did not accept ActewAGL's proposal that forecast opex be adjusted to account for differences between the actual and forecast customer connections.

ActewAGL reinserted the clause in its revised access arrangement. It stated that it maintains its position as set out in its June 2015 submission. Specifically, it stated that if the adjustment for differences between forecast and actual connections is not retained in the 2016-21 access arrangement, it would be penalised when connections exceed forecast connections, and rewarded for situations where demand falls below the forecast. It considered that this would be inconsistent with the revenue and pricing principles. It also noted that an adjustment for actual connections would be a continuation of the treatment that has applied in its 2010–15 access arrangement and continuing this treatment would involve low administrative costs.

Since making ActewAGL's 2010-15 access arrangement we have reconsidered whether we should adjust forecast opex for changes output growth when calculating

[13] AER, *Draft decision ActewAGL Distribution Access Arrangement 2016-21 - Attachment 9 - Efficiency carryover mechanism*, November 2015, p. 18.

carryovers. We considered this issue in the development of version two of the efficiency benefit sharing scheme for electricity network service providers. We stated in the explanatory statement for our proposed EBSS that we considered there was no compelling reason why the forecasting risk associated with output growth should be shared differently between service providers and consumers when compared with how the forecasting risk associated with controllable opex is shared.[14]

For instance, if there was an unexpected cost increase due to unexpected network growth, service providers would only pay for 30 per cent of the cost of the increase while consumers will pay for 70 per cent of the increase. If the cost was excluded from the EBSS, the sharing ratio would be different. We saw no reason why an alternative ratio for sharing the benefits and costs of unexpected network growth was preferable. Consistent with this approach we do not agree with ActewAGL that its forecast opex should be adjusted to account for differences between the actual and forecast customer connections. We consider that this approach is consistent with the revenue and pricing principles.[15]

We therefore do not accept ActewAGL's inclusion of the clause and have removed it.

Fixed principles

In our draft decision, we did not accept that the principles in section three of the access arrangement (excluding clause 3.2) should be fixed principles as no justification has been provided as to why these principles should be fixed principles. Consequently, we removed clause 5.1(a) of the proposed access arrangement and requested ActewAGL to provide justification as to why these principles should be fixed for the purpose of Rule 99 of the NGR.[16]

In its response to the draft decision, ActewAGL amended the fixed principle clause to provide additional clarity as to the access arrangement periods that would be fixed. It amended clause 5.1(a) of its proposed access arrangement to state "the principles set out in section 3 other than those in clause 3.7(b)(vii) are fixed for the purposes of the 2016 access arrangement period and the 2021 access arrangement period but, for the avoidance of doubt, are not binding in respect of the determination of total revenue for the 2026 Access Arrangement Period".

However, ActewAGL did not provide any justification as to why these principles should be fixed, as we requested. As ActewAGL did not provide further justification, we maintain our draft decision not to accept the fixed principle.

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[14] AER, *Proposed efficiency benefit sharing scheme*, Explanatory statement, August 2013, p. 27.

[15] NGL, s. 24(3).

[16] AER, *Draft decision ActewAGL Distribution Access Arrangement 2016-21 - Attachment 9 - Efficiency carryover mechanism*, November 2015, p. 20.