



FINAL DECISION
Australian Gas Networks
Access Arrangement
2016 to 2021

Attachment 9 – Efficiency
carryover mechanism

May 2016

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Note

This attachment forms part of the AER's final decision on the access arrangement for Australian Gas Networks South Australian distribution network 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

Attachment 14 - Other incentive schemes

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Shortened forms

Shortened form	Extended form
AA	Access Arrangement
AAI	Access Arrangement Information
AER	Australian Energy Regulator
AGN	Australian Gas Networks
ATO	Australian Tax Office
capex	capital expenditure
CAPM	capital asset pricing model
CCP	Consumer Challenge Panel
CESS	Capital Expenditure Sharing Scheme
CPI	consumer price index
CSIS	Customer Service Incentive Scheme
DRP	debt risk premium
EBSS	Efficiency Benefit Sharing Scheme
ECM	Efficiency Carryover Mechanism
ERP	equity risk premium
Expenditure Guideline	Expenditure Forecast Assessment Guideline
gamma	value of imputation credits
GSL	Guaranteed Service Level
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
NIS	Network Incentive Scheme
NPV	net present value
opex	operating expenditure
PFP	partial factor productivity
PPI	partial performance indicators

Shortened form	Extended form
PTRM	post-tax revenue model
RBA	Reserve Bank of Australia
RFM	roll forward model
RIN	regulatory information notice
RoLR	retailer of last resort
RPP	revenue and pricing principles
SLCAPM	Sharpe-Lintner capital asset pricing model
STPIS	Service Target Performance Incentive Scheme
TAB	tax asset base
UAFG	unaccounted for gas
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 the access arrangement period. This is supplemented with 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 acts to discourage a service provider from inflating its base year opex in order to receive a higher opex allowance in the following access arrangement period.

An efficiency carryover mechanism applied to AGN during the 2011–16 access arrangement period.¹ AGN proposed an efficiency carryover mechanism apply to it in the 2016–21 access arrangement period.

9.1 Final decision

9.1.1 Carryover amounts from the 2011–16 period

Our final decision is to carryover –\$0.5 million (\$2015–16) from the 2011–16 access arrangement period to the revenue building blocks for the 2016–21 access arrangement period. Table 9.1 shows our final decision on the carryover amounts, which are the same as those proposed by AGN in its revised proposal.²

Table 9.1 AER final decision on carryover amounts (\$million, \$2015–16)

	2016-17	2017-18	2018-19	2019-20	2020-21	Total
AER final decision	5.4	(2.7)	(3.5)	0.3	0.0	–0.5
AGN revised proposal	5.4	(2.7)	(3.5)	0.3	0.0	–0.5

Source: AER analysis; AGN, *Revised Access Arrangement Information for AGN's SA Natural Gas Distribution Network - Attachment 1.5A South Australian Post tax Revenue Model, ECM spreadsheet*, 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.

² AGN amended its revised efficiency carryover mechanism calculations in February 2016 to take into account a project that was reclassified as opex (from capex) refer to AGN, *Response to AER Information request AER AGN 34A Valve Corrosion Protection* [email to AER], 17 February 2016.

9.1.2 Incentive mechanism for the 2016–21 period

Our final decision is to apply an efficiency carryover mechanism to AGN in the 2016-21 access arrangement period. The mechanism is outlined in our approved access arrangement for AGN and is consistent with the Efficient Benefit Sharing Scheme (EBSS) we published for electricity distributors in November 2013. It is also the same mechanism included in our draft decision, which AGN accepted in its revised proposal.

9.2 AGN's revised proposal

9.2.1 Carryover amounts from the 2011–16 period

AGN accepted our draft decision on carryover amounts from the 2011–16 period, which were consistent with its original proposal. However, AGN updated its calculations, replacing estimated 2014–15 opex with actual 2014–15 opex.³ This results in a total carryover amount of –\$0.5 million (\$2015–16) to the revenue building blocks for the 2016–21 access arrangement period. Table 9.2 shows AGN's calculation of incremental efficiency gains (losses) and carryover amounts.

Table 9.2 AGN's carryover amount calculations (\$ million, 2015–16)

Opex	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total
Benchmark	77.0	75.7	75.0	73.3	70.6						
Actual	68.9	66.9	69.8	67.9	65.2						
Underspend	8.1	8.9	5.1	5.4	5.4						
Incremental gain (loss)	8.1	0.8	(3.7)	0.3	0.0						
2016-17		8.1	8.1	8.1	8.1	8.1					
2017-18			0.8	0.8	0.8	0.8	0.8				
2018-19				(3.7)	(3.7)	(3.7)	(3.7)	(3.7)			
2019-20					0.3	0.3	0.3	0.3	0.3		
2020-21						0.0	0.0	0.0	0.0	0.0	
Efficiency carryover amounts						5.4	(2.7)	(3.5)	0.3	0.0	–0.5

Source: AGN, *Revised Access Arrangement Information for AGN's SA Natural Gas Distribution Network - Attachment 1.5A South Australian Post-tax Revenue Model, ECM spreadsheet*, January 2016, and AGN, *Response to AER Information request AER AGN 34A Valve Corrosion Protection* [email to AER], 17 February 2016.

³ AGN, *Revised Access Arrangement Information for AGN's SA Natural Gas Distribution Network - Attachment 12.1 Incentive Arrangements*, January 2016, pp. 8–9.

9.2.2 Incentive mechanism for the 2016–21 period

In its revised proposal, AGN accepted our draft decision to apply an incentive mechanism consistent with version two of our EBSS in the 2016–21 access arrangement period.^{4 5}

9.3 AER's assessment approach

Our assessment approach is the same as in the draft decision.⁶ In the draft decision we also discuss the interrelationships between the efficiency carryover mechanism, our forecasting approach and other incentive schemes.

9.4 Reasons for final decision

9.4.1 Carryover amounts from the 2011–16 period

In our draft decision, we accepted AGN's calculations which resulted in a total carryover of \$4.8 million (\$2015–16) to the revenue building blocks for the 2016–21 access arrangement period.

AGN maintained its approach to the treatment of incremental efficiency gains (losses) but updated the calculations using actual audited 2014–15 opex (rather than estimated 2014–15 opex). We accept AGN's revisions and the resulting total carryover amount of –\$0.5 million (\$2015–16) to be applied to the revenue building blocks for the 2016–21 access arrangement period. Table 9.1 shows our final decision on carryover amounts from the 2011–16 period.

9.4.2 Incentive mechanism for the 2016–21 period

Our final decision is to accept the efficiency carryover mechanism for the 2016-21 period included in AGN's revised proposal for reasons set out in our draft decision.⁷ AGN's revised proposal accepted the efficiency carryover mechanism we proposed in our draft decision.

⁴ Details on how version two of the EBSS operates are set out in the AER's November 2013 publications 'Efficiency Benefit Sharing Scheme for Electricity Network Service Providers', and 'Explanatory Statement - Efficiency Benefit Sharing Scheme for Electricity Network Service Providers'.

⁵ AGN, *Revised Access Arrangement Information for AGN's SA Natural Gas Distribution Network - Attachment 12.1 Incentive Arrangements*, January 2016, pp. 2, 9.

⁶ AER, *Draft decision Australian Gas Networks Access Arrangement 2016-21 - Attachment 9 - Efficiency carryover mechanism*, November 2015, p. 9-10.

⁷ AER, *Draft decision Australian Gas Networks Access Arrangement 2016-21 - Attachment 9 - Efficiency carryover mechanism*, November 2015, pp. 9-11 to 9-16.

Table 7.1 in Attachment 7 sets out our final decision on AGN's opex for the ECM against which we will calculate efficiency gains (or losses) in the 2016–21 access arrangement period.⁸

⁸ Total opex in Table 7.1 does not include debt raising costs. While this forecast includes costs that have been specifically forecast, we would expect these costs to be excluded from the calculation of the efficiency carryover mechanism as they are not forecast using a single-year revealed cost approach.