



**DRAFT DECISION**  
**ActewAGL Distribution**  
**Access Arrangement**  
**2016 to 2021**

**Attachment 9 – Efficiency**  
**carryover mechanism**

November 2015

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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](mailto:AERInquiry@aer.gov.au)

## Note

This attachment forms part of the AER's draft decision on ActewAGL Distribution's access arrangement for 2016–21. 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 - Efficiency carryover mechanism

Attachment 10 - Reference tariff setting

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## 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
CESS	Capital Expenditure Sharing Scheme
CMF	construction management fee
CPI	consumer price index
DAMS	Distribution Asset Management Services
DRP	debt risk premium
EBSS	Efficiency Benefit Sharing Scheme
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

An efficiency carryover mechanism provides an additional incentive for service providers to pursue efficiency improvements in opex.

It is often used as part of incentive regulation. Because opex is largely recurrent and predictable, opex in one period is generally a good indicator of opex in the next period. Where a service provider is relatively efficient, we use the actual opex it incurred in a chosen base year of the access arrangement period to forecast its opex for the next access arrangement period.

To encourage a service provider to become more efficient, it is allowed to keep any difference between its approved forecast and its actual opex within an access arrangement period. We typically supplement this by applying an efficiency carryover mechanism which provides a service provider with an additional reward for reductions in opex it makes and additional penalties for increases in opex. Together, these rewards and penalties provide a constant incentive for a service provider to pursue efficiency gains over the access arrangement period. An 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 in the 2010–15 access arrangement period and one has been proposed for the 2016–21 access arrangement period.

ActewAGL requested a 12 month delay in the review of its access arrangement to avoid the overlap with the AER's ActewAGL electricity distribution determination. ActewAGL therefore proposed to close the efficiency carryover mechanism in 2015–16 and restart it in 2016–17.

We consider the period between 1 July 2015 (the revision commencement date in the current access arrangement) and 1 July 2016, when revisions will actually take effect, constitutes an interval of delay for the purposes of rule 92(3) of the NGR.

### 9.1 Draft decision

#### 9.1.1 Carryover amounts from the 2010–15 period

We do not accept ActewAGL's proposal to carryover \$11.2 million (\$2015–16) from the 2010–15 period to the revenue building blocks for the 2016–21 period.

We consider ActewAGL should receive a carryover amount of \$1.4 million (\$2015–16) in the 2016–21 period from the application of the efficiency carryover mechanism during the 2010–15 period. We have also included in the revenue building blocks for 2015–16 a carryover amount of \$1.5 million. This brings the total carryover amount included in the revenue building blocks to \$2.9 million. Our decision is shown in Table 9.1 Table 9.1.

Two key reasons explain the difference in our total carryover amount compared to ActewAGL’s proposed carryover amount:

- ActewAGL did not update the equations which calculate incremental gains (losses) to reflect a changed base year from that implied in its efficiency carryover mechanism for the 2010–15 access arrangement.<sup>1</sup>
- ActewAGL has not included a carryover amount for the 2015–16 regulatory year.

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

	2015–16	2016–17	2017–18	2018–19	2019–20	2020–21	Total
AER draft decision on carryover amounts	1.5	3.6	0.6	-0.4	-2.4	0.0	2.9

Source: AER analysis.

### 9.1.2 Incentive mechanism proposed for the 2016–21 period

While we support the continued application of an efficiency carryover mechanism to ActewAGL in the 2016–21 access arrangement period, we do not approve the efficiency carryover mechanism proposed by ActewAGL. We have made amendments to ActewAGL’s proposed efficiency carryover mechanism which:

- streamline and reduce the categories of costs that are excluded from the operation of the efficiency carryover mechanism.
- adjust ActewAGL’s approved opex forecasts to account for (1) approved pass through amounts and (2) capitalisation policy changes.
- applies a different equation to calculate the incremental efficiency gain (loss) for the first regulatory year (2016–17), given that we do not agree that the efficiency carryover mechanism should be closed in 2015–16 and restarted in 2016–17.
- removes a clause which sets out how the efficiency carryover mechanism would operate should an interval of delay take place after the 2016–21 access arrangement period.

Based on our assessment of opex in Attachment 7 of this draft decision, we have determined the total annual opex forecasts we will use to calculate efficiency gains and losses for the 2016–21 period. We have also determined a forecast for 2015–16 as a forecast was not approved at the time the 2010–15 access arrangement, as the delay had not been anticipated. The 2015–16 opex forecast is necessary to accurately calculate the incremental gain (loss) in 2016–17, the first year of the 2016–21 period. Without this forecast, incremental efficiency gains in the 2015–16 year would carryover

<sup>1</sup> Clause 4.6 of the 2010–15 access arrangement implies the base year would be year four of the 2010–15 access arrangement, that is, 2013–14.



for six years rather than five years. Our draft decision on ActewAGL's forecast opex is set out in Attachment 7 (Table 7.1).

## **9.2 ActewAGL's proposal**

### **9.2.1 Carryover amounts from the 2010–15 period**

ActewAGL proposed that a total carryover amount of \$11.2 million (2015–16) from the 2010–15 access arrangement period be added to the revenue building blocks for the 2016–21 access arrangement period.

ActewAGL used the equations set out in clause 4.6 of its 2010–15 access arrangement to calculate incremental efficiency gains (losses). These formulas assume the base year is year four of the 2010–15 access arrangement period (that is, 2013–14) and that the first year of the subsequent access arrangement period would commence on 1 July 2015.

It was not known at the time the current access arrangement was made that an interval of delay would occur during 2015–16, with the next access arrangement commencing 1 July 2016.

ActewAGL proposed the efficiency carryover mechanism be closed in 2015–16 and restarted in 2016–17 for the duration of the 2016–21 access arrangement period. This treatment means no incremental efficiency gains would be calculated in the 2015–16 regulatory year or retained for the five year carryover period. This does not impact carryover of incremental efficiency gains (losses) from the 2010–15 period.

ActewAGL therefore calculated a total carryover amount of \$14.9 million (\$2015–16) from the 2010–15 period to the 2015–16 and the 2016–21 period. This includes a carryover amount of \$3.7 million for the 2015–16 regulatory year. However, ActewAGL proposed this amount not be added to the revenue building blocks. As a result ActewAGL proposed a total carryover amount of \$11.2 million (\$2015–16).

Table 9.2 outlines ActewAGL's proposed treatment of the incremental efficiency gains (losses) to calculate the carryover amounts.

**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
<b>Forecast opex</b>	18.4	20.8	21.6	21.6	20.9	n/a						
<b>Actual</b>	26.7	28.7	27.8	26.2	27.6	n/a						
<b>Excluded costs</b>	6.0	8.5	7.7	8.3	8.3	n/a						
<b>Opex subject to incentive mechanism</b>	20.7	20.2	20.1	17.9	17.2	n/a						
<b>Incremental gain (loss)</b>	-2.3	3.0	0.9	2.1	0.0	n/a						
<b>Carryover</b>												
2015–16		-2.3	-2.3	-2.3	-2.3	-2.3						
2016–17			3.0	3.0	3.0	3.0	3.0					
2017–18				0.9	0.9	0.9	0.9	0.9				
2018–19					2.1	2.1	2.1	2.1	2.1			
2019–20						0.0	0.0	0.0	0.0	0.0		
2020–21							n/a	n/a	n/a	n/a	n/a	
<b>Efficiency carryover</b>						<b>3.7</b>	<b>6.0</b>	<b>3.0</b>	<b>2.1</b>	<b>0.0</b>	<b>0.0</b>	14.9 <sup>2</sup>
<b>PTRM input</b>						<b>0.0</b>	<b>6.0</b>	<b>3.0</b>	<b>2.1</b>	<b>0.0</b>	<b>0.0</b>	11.2

Source: ActewAGL, *Access arrangement for the ACT Queanbeyan and Palerang gas distribution network 1 July 2016 to 30 June 2021*, July 2015, RIN 2016–17 to 2020–21, worksheet 7.5 ‘Efficiency Benefit Sharing Scheme – Rolling Carry-Over Mechanism’.

### 9.2.2 Incentive mechanism proposed for the 2016–21 period

ActewAGL proposed to restart an efficiency carryover mechanism at the start of the 2016–21 access arrangement period. The mechanism it proposed to apply is based on the mechanism contained in its 2010–15 access arrangement, with modifications designed to:

- make it more consistent with the AER’s electricity network Efficiency Benefit Sharing Scheme (EBSS)
- update exclusions and adjustments

<sup>2</sup> ActewAGL proposed a start year of 2015–16, which it considers consistent with the underlying intention of the incentive mechanism and the formula set out in the 2010–15 access arrangement period.

- clarify the operation of the mechanism should another interval of delay occur at the end of the 2016–21 access arrangement period.

### ***Consistency with the AER's electricity EBSS***

With the exception of the first year in the access arrangement period (2016–17), the equations that ActewAGL propose to use to calculate incremental efficiency gains (losses) are consistent with those set out in our EBSS guideline for electricity networks.<sup>3</sup> ActewAGL proposed to calculate incremental efficiency gains in 2016–17 (the first year of the new arrangement) using the formula:  $E_1 = F_1 - A_1$ .<sup>4</sup>

This approach results in an efficiency carryover mechanism with the following features:

- ActewAGL will keep the benefit (or incur the cost) of delivering actual opex lower (higher) than forecast opex in each financial year of the access arrangement period.
- the mechanism carries forward ActewAGL's incremental efficiency gains (losses) for the five financial years from the financial year in which those gains (losses) occur.
- annual carryover amounts accrue in each financial year of the subsequent access arrangement period as the sum of the incremental efficiency gains (losses) in the applicable access arrangement period that are carried forward for five years or less into that financial year.
- annual carryover amounts are added to ActewAGL's total revenue in each financial year of the subsequent access arrangement period.

### ***Exclusions and adjustments***

ActewAGL proposed the following costs be excluded from its efficiency carryover mechanism's operation for the 2016–21 access arrangement period:

- debt raising costs
- insurance and superannuation costs
- non-controllable costs (including costs related to levies, taxes, licenses, UAG, tariff payments, as well costs beyond the control of ActewAGL approved by the regulator)
- costs not forecast using a single year revealed cost approach in the access arrangement period immediately following this access arrangement

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<sup>3</sup> AER, *Efficiency Benefit Sharing Scheme for Electricity Network Service Providers*, November 2013.

<sup>4</sup> ActewAGL, *Access arrangement for the ACT Queanbeyan and Palerang gas distribution network 1 July 2016 to 30 June 2021*, July 2015, p. 5.

- costs the regulator determines to exclude following consultation with ActewAGL as the inclusion of such costs in the efficiency carryover mechanism would not promote the National Gas Objective.

ActewAGL also proposed actual opex be adjusted to exclude expenditure resulting from cost pass through events and forecast opex be adjusted to take account of:

- changes in scope of the activities that form the basis for determining forecast expenditure
- any difference between the actual and forecast number of connections in a calendar year
- any change in ActewAGL's approach to classifying costs as either capital or operating expenditure.<sup>5</sup>

### ***Future possible interval of delay***

ActewAGL proposed to insert a clause on how the efficiency carryover mechanism would operate should an interval of delay take place after the 2016–21 access arrangement period. The approach is the same as that proposed by ActewAGL to account for the 2015–16 regulatory year:<sup>6</sup>

- the incentive mechanism not apply to operating expenditure incurred in the interval of delay, such that incremental efficiency gains or losses will not be calculated in respect of the period of the interval of delay.
- annual carryover amounts accrued in the 2016–21 access arrangement period will not be applied in deriving notional total revenue for the interval of delay. Instead annual carryover amounts will be added to total revenue in each financial year of the subsequent access arrangement period as would have occurred had there been no interval of delay.
- The incremental efficiency gain (or loss) in the first year of the subsequent access arrangement period will be calculated using the formula  $E_1 = F_1 - A_1$ .

## **9.3 AER's assessment approach**

An efficiency carryover mechanism is a form of incentive mechanism. A full access arrangement may include (and the AER may require it to include) one or more incentive mechanisms to encourage efficiency in the provision of services by the service provider.<sup>7</sup> An incentive mechanism must be consistent with the revenue and pricing principles.<sup>8</sup>

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<sup>5</sup> ActewAGL, *Access arrangement for the ACT Queanbeyan and Palerang gas distribution network 1 July 2016 to 30 June 2021*, July 2015, p. 8.

<sup>6</sup> ActewAGL, *Access arrangement for the ACT Queanbeyan and Palerang gas distribution network 1 July 2016 to 30 June 2021*, July 2015, pp. 8–9 (clause 3.9).

<sup>7</sup> NGR, r. 98(1).

<sup>8</sup> NGR, r. 98(3).

We consider the following revenue and pricing principle is most relevant for assessing ActewAGL's efficiency carryover mechanism proposal:<sup>9</sup>

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.<sup>10</sup>

Under the NGR we have full discretion in our decision as to whether to approve the introduction of an incentive scheme.<sup>11</sup>

### 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 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.
- 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).

## 9.4 Reasons for draft decision

### 9.4.1 Carryover amounts from the 2010–15 period

We consider ActewAGL should receive a carryover amount of \$1.4 million (\$2015–16) in the 2016–21 access arrangement period and \$1.5 million in 2015–16 from the application of the efficiency carryover mechanism during the 2010–15 access arrangement period. Our carryover amount calculations are in Table 9.3.

There are two key reasons which explain the difference in our total carryover amount and the \$11.2 million (2015–16) carryover amount proposed by ActewAGL:

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<sup>9</sup> NGL, s. 24(3).

<sup>10</sup> NGL, s. 24(3).

<sup>11</sup> NGR, r. 40(3).

- ActewAGL did not update the equations which calculate incremental gains (losses) to reflect a changed base year from that implied in its efficiency carryover mechanism for the 2010–15 access arrangement.
- ActewAGL did not include a carryover amount for the 2015–16 regulatory year.

Further, the CPI calculations in our efficiency carryover mechanism and opex models have been adjusted to be consistent with each other. We also account for changes in provisions related to opex where ActewAGL has not.

**Table 9.3 AER decision on carryover amounts from the 2010–15 period.**

Opex	10–11	11–12	12–13	13–14	14–15	15–16	16–17	17–18	18–19	19–20	20–21	Total
<b>Forecast opex</b>	18.4	20.8	21.6	21.6	20.9	24.7						
<b>Actual</b>	26.7	28.7	27.8	26.2	27.6	n/a						
<b>Excluded costs</b>	6.0	8.5	7.7	8.3	8.3	n/a						
<b>Opex subject to incentive mechanism</b>	20.6	20.0	19.8	17.8	19.5	n/a						
<b>Incremental gain (loss)</b>	-2.2	3.0	1.0	2.0	-2.4	0.0 <sup>12</sup>						
<b>Carryover</b>												
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						-2.4	-2.4	-2.4	-2.4	-2.4		
2020–21							0.0	0.0	0.0	0.0	0.0	
<b>Efficiency carryover</b>						<b>1.5</b>	<b>3.6</b>	<b>0.6</b>	<b>-0.4</b>	<b>-2.4</b>	<b>0.0</b>	<b>2.9</b>
<b>PTRM input</b>						<b>1.5</b>	<b>3.6</b>	<b>0.6</b>	<b>-0.4</b>	<b>-2.4</b>	<b>0.0</b>	<b>2.9</b>

Source: AER analysis.

### *Calculation of carryover amounts*

ActewAGL’s 2010–15 access arrangement efficiency carryover mechanism assumed that year four in the access arrangement period (2013–14) would be used as the base year to forecast opex. Because ActewAGL now proposed to use year five (2014–15)

<sup>12</sup> Consistent with our usual treatment of the incremental efficiency gain in the final year of the regulatory period, this amount is assumed to equal zero.

as the base year in the 2010–15 access arrangement period, this change needs to be reflected in the application of the efficiency carryover mechanism.

Where year five is the base year, the formula to calculate the carryover amount for the second, third and fourth years of the access arrangement should also be applied to year five:  $E_i = (F_i - A_i) - (F_{i-1} - A_{i-1})$ . ActewAGL did not amend the year five formula to be consistent with using a year five (2014–15) base year. However, consistent with the design of the efficiency carryover mechanism, we have used this formula to estimate the year five carryover amount.

We consider zero efficiency gains should be assumed in 2015–16. This is consistent with our usual approach which assumes the incremental efficiency gain (loss) in the final year of the access arrangement period is equal to zero.

### ***Should the 2015–16 carryover be retained by ActewAGL?***

ActewAGL did not propose to recover the \$3.7 million carryover amount for 2015–16 as it assumed that no true-up would occur, consistent with its treatment of revenue and tariff adjustments for that year.

The NGR provide that where there is an interval of delay a true-up of revenues may be undertaken. As a result, it would be appropriate for the 2015–16 carryover amount to be retained by ActewAGL. Further, ActewAGL retaining the carryover amount for 2015–16 is consistent with the efficiency carryover mechanism principle that network service providers are able to keep the benefit of delivering actual opex lower than forecast opex.

## **9.4.2 Incentive mechanism for the 2016–21 period**

We approve the application of an efficiency carryover mechanism to ActewAGL in the 2016–21 access arrangement. Without such a mechanism:<sup>13</sup>

- ActewAGL would have an incentive to increase opex in the expected 'base year' in order to increase its forecast opex allowance for the following access arrangement period. Because our preferred approach typically is to base forecast opex on the actual opex incurred in the base year, an increase in expenditure in the base year would result in an increased opex forecast for five years.
- ActewAGL's incentive to reduce its opex declines as the access arrangement period progresses. ActewAGL would have an incentive to defer efficiency gains until after the base year so it can retain the benefits of doing so for longer because they would not be reflected in the opex forecasts for the following period.

For these reasons, consistent with the revenue and pricing principles, we consider an efficiency carryover mechanism is needed in the 2016–21 period.

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<sup>13</sup> AER, *Efficiency Benefit Sharing Scheme for Electricity Providers*, November 2013.

Although ActewAGL's proposed mechanism is similar to our standard efficiency carryover mechanism we do not accept a number of aspects of the ActewAGL's proposed mechanism.

With the exception of the equation to calculate the incremental efficiency gain (loss) in the first regulatory year (2016–17), we approve the equations ActewAGL proposed to use to calculate annual incremental efficiency gain (losses).

We accept some but not all of ActewAGL's proposed adjustments and exclusions. We also note that a number of the proposed exclusions are addressed by general exclusions and therefore we have removed a number of the proposed exclusions.

We do not consider that the efficiency carryover mechanism should incorporate specific provisions for a potential interval of delay. We note that the interval of delay in 2015–16 was a result of a specific request by ActewAGL for a delay to the submission of its access arrangement proposal to avoid its electricity and gas decisions occurring simultaneously. In any event, we are not satisfied that the efficiency carryover mechanism should incorporate specific provisions for a potential interval of delay. This is because the NGR deal with the occurrence of an interval of delay.

### ***Revised equations to calculate incremental efficiency gains***

With the exception of the treatment of the first regulatory year, we approve the revised equations proposed to calculate incremental efficiency gains (losses) as these are broadly consistent with the AER's EBSS guidelines.

We consider that the usual formula that would apply from the second to the penultimate regulatory years (the year two formula) should be used in the 2016–17 regulatory year:  $E_i = (F_i - A_i) - (F_{i-1} - A_{i-1})$ .

Where:

$E_i$  is the efficiency gain for financial year 2016–17.

$F_i$  is the forecast operating expenditure for financial year 2016–17.

$A_i$  is the actual operating expenditure for financial year 2016–17.

$F_{i-1}$  is the forecast operating expenditure for financial year 2015–16.

$A_{i-1}$  is the actual operating expenditure for financial year 2015–16.

The year two formula is more appropriate than the year one formula proposed by ActewAGL:  $E_1 = (F_1 - A_1)$ . ActewAGL's proposed formula essentially re-starts the efficiency carryover mechanism and would result in ActewAGL retaining efficiency gains achieved in the 2015–16 for six years rather than five.

The year two formula is also more appropriate in this specific case than the year six formula which would usually be applied in the first regulatory year where an efficiency carryover mechanism is continued:



$$E_1 = (F_1 - A_1) - (F_{2015-16} - A_{2015-16}) + (F_{2014-15} - A_{2014-15}) - \text{non-recurrent efficiency gains}_{2014-15}$$

This is because the year six formula takes into account efficiency gains made between the base year and 2015–16. However, these efficiency gains have already been taken into account in this particular circumstance in our forecast opex for 2015–16.

Revisions 9.2 and 9.4 in section 9.5 outline changes to the proposed access arrangement to give effect to this decision. We also made minor edits to the proposed access arrangement to clarify the operation of the mechanism and to correct inadvertent errors. For example, ensuring the definition of non-recurrent efficiency gains for the base year applies to the correct access arrangement period. These are revisions 9.1, 9.3 and 9.5 in section 9.5.

### ***Adjustments and exclusions to forecast or actual opex when calculating carryover amounts***

ActewAGL proposed a number of adjustments and exclusions to forecast and actual opex when calculating carryover amounts. We approve some but not all of the proposed excluded cost categories and adjustments. Our decisions are consistent with the EBSS for electricity distribution network service providers.<sup>14</sup> Our reasons are below and specific revisions are in section 9.5.

#### ***Adjustments for change in scope***

We do not accept ActewAGL's proposal that the calculation of carryover amounts should be adjusted to take into account changes in scope of the activities which form the basis for determining forecast expenditure (clause 3.8(a)(i) of the proposed access arrangement).

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. Revision 9.6 in section 9.5 outlines changes to the proposed access arrangement to give effect to this decision.

#### ***Adjustments for changes in demand***

We do not accept ActewAGL's proposal that the calculation of carryover amounts should be adjusted to take into account the difference between actual and forecast number of connections (clause 3.8(a)(ii) of the proposed access arrangement).

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<sup>14</sup> AER, *Efficiency Benefit Sharing Scheme for Electricity Network Service Providers*, November 2013.

Similar to adjustments for changes in scope, when we forecast opex we already apply a forecast annual rate of change. The annual rate of change accounts for forecast changes in output levels. The risk that this forecast is too high or too low is symmetrical and we consider it 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. Revision 9.7 in section 9.5 outlines changes to the proposed access arrangement to give effect to this decision.

### ***Changes in capitalisation policy***

We accept that the efficiency carryover mechanism should take into account any changes in ActewAGL's capitalisation policy (clause 3.8(a)(iii) of the proposed access arrangement) particularly given that we will not apply a capital expenditure incentive mechanism to ActewAGL.

### ***Debt raising costs***

We agree debt raising costs should be excluded from the efficiency carryover mechanism. The efficiency carryover mechanism is designed to work in conjunction with a single year revealed expenditure approach. If a service provider reduces its opex in one period, consumers pay for efficiency carryover amounts in the next period but receive the benefits through a lower opex forecast for the next period. Where we use this forecasting approach for opex, the benefits to consumers of a lower opex forecast will always outweigh the efficiency carryover payments it will pay for.

Where a different forecasting approach is used, there is a risk that consumers will not benefit. For instance, we forecast debt raising costs using a benchmark. If ActewAGL reduces its actual debt raising costs in an access arrangement period and we applied the efficiency carryover mechanism, consumers will end up paying for efficiency carryover amounts but will not receive the benefits of a lower opex forecast.

While we accept debt raising costs should be excluded from the efficiency carryover mechanism, we consider that debt raising costs would fall within the exclusion set out in clause 3.8(b)(v)(A) of the proposed access arrangement. This clause excludes all costs not forecast using a single year revealed cost approach in the access arrangement period following the 2016–21 access arrangement.

As such, we do not consider this specific exclusion (clause 3.8(b)(i)) needs to be included as a separate clause. Revision 9.8 in section 9.5 outlines changes to the proposed access arrangement to give effect to this decision.

### ***Insurance and superannuation costs***

We do not accept that insurance and superannuation costs should be excluded from the operation of the efficiency carryover mechanism (clauses 3.8(b)(ii) and 3.8(b)(iii) of the proposed access arrangement), notwithstanding their exclusion from the efficiency

carryover mechanism in the 2010–15 access arrangement. This is because, when opex is forecast, it takes into account expected changes (increases and decreases) in costs.<sup>15</sup> The risk that the forecast is too high or low is symmetrical. We consider this risk 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. Revision 9.9 in section 9.5 outlines changes to the proposed access arrangement to give effect to this decision.

### ***Non controllable costs***

We accept the cost of any relevant government levies and taxes, unaccounted for gas costs, licence fees and carbon costs should be excluded from the operation of the efficiency carryover mechanism (clause 3.8(b)(iv)(A) of the proposed access arrangement).<sup>16</sup> Changes in these costs from approved forecasts during the access arrangement period are subject to true-ups through the tariff variation mechanism. As the tariff variation mechanism is designed to pass through changes in these costs (either higher or lower) to consumers, these categories of costs are incompatible with an efficiency carryover mechanism.

Further, we note that these costs are already captured by clause 3.8(b)(v)(A) of the proposed access arrangement. This excludes all costs not forecast using a single year revealed cost approach in the access arrangement period following the 2016–21 access arrangement. As there is no need to repeat the exclusion, we have removed clause 3.8(b)(iv)(A).

We do not accept that costs that 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 (clause 3.8(b)(iv)(B) of the proposed access arrangement). 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.

Revision 9.10 in section 9.5 outlines changes to the proposed access arrangement to give effect to this decision.

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<sup>15</sup> Attachment 7 contains our estimate of total opex that complies with the opex criteria. Insurance and superannuation costs have been forecast using a single year revealed cost approach.

<sup>16</sup> In any case, we note these costs are more appropriately linked to clauses 2.1 to 2.4 of Schedule 4 of the proposed access arrangement rather than clauses 2.1 to 2.4 of Schedule 3 (which is the currently proposed text).

***Costs not forecast using a single year revealed cost approach in the access arrangement period following the 2016–21 access arrangement period***

We accept the proposed clause 3.8(b)(v)(A) with some minor amendments in order to maintain consistency with the clause contained in the 2015–20 JGN access arrangement. This clause provides us with some discretion to exclude costs from the efficiency carryover mechanism where a category of opex is not forecast using a single year revealed cost approach in the access arrangement period expected to commence on 1 July 2021. We will exclude such cost categories if doing so better achieves the National Gas Objectives.

Revision 9.11 in section 9.5 outlines changes to the proposed access arrangement to give effect to this decision.

***Costs the regulator determines should be excluded as it would not promote the National Gas Objective***

We accept clause 3.8(b)(v)(B) of the proposed access arrangement. This clause provides us with some discretion to exclude costs from the efficiency carryover mechanism where this better achieves the National Gas Objectives. This approach is consistent with the discretion we have to adjust the carryover amounts in our electricity network EBSS.

We also note that the proposed clause is consistent with our final decision made in respect of the 2015–20 JGN access arrangement and we have made additional minor changes to keep this clause consistent with that decision.<sup>17</sup>

***Determined pass through amounts***

Within an access arrangement period we may adjust target opex to add or subtract approved pass through amounts. It is our preference to add (or subtract) these pass through amounts to forecast opex rather than adjust actual opex to remove the passed through amount. We consider that adjusting the opex forecast ex post rather than removing the costs from actual opex is the most practical way to apply the efficiency carryover mechanism when accounting for changes to a service provider's forecast opex. We accept proposed clause 3.8 (c) with some minor modifications.

Where some of the costs that are passed through are yet to be incurred, adjusting the target rather than excluding them from the efficiency carryover mechanism will also ensure that ActewAGL still has an incentive to reduce these costs.

Revision 9.12 in section 9.5 outlines changes to the proposed access arrangement to give effect to this decision.

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<sup>17</sup> AER, *Final decision JGN distribution access arrangement – Approved Access Arrangement (clean)*, June 2015 p. 34.

### ***Future possible interval of delay***

We do not consider that the efficiency carryover mechanism should incorporate specific provisions for an interval of delay (proposed clause 3.9).

We note the interval of delay in 2015–16 was a result of a specific request by ActewAGL for a delay to the submission of its access arrangement proposal to avoid its electricity and gas decisions occurring simultaneously. In any event, we are not satisfied that the efficiency carryover mechanism should incorporate specific provisions for a potential interval of delay. This is because the NGR deal with the occurrence of an interval of delay.

Further, we do not accept that the clauses ActewAGL proposes are consistent with the stated objectives of the efficiency carryover mechanism. For example, the ability for a scheme to be turned ‘on and off’ does not promote having a continuous incentive in place.

Revision 9.13 in section 9.5 outlines changes to the proposed access arrangement to give effect to this decision.

### ***Fixed principles***

In clause 5.1(a) of its access arrangement ActewAGL has proposed that the principles set out in section 3 of its access arrangement relating to the efficiency carryover mechanism (excluding those in clause 3.2) are fixed for the purposes of the 2016–21 access arrangement period and the next access arrangement period.

Notwithstanding that its 2010–15 access arrangement contained fixed principles in relation to the efficiency carryover mechanism, no justification has been provided as to why section 3 of the access arrangement (excluding clause 3.2) should be classified as fixed principles. We therefore do not accept that the principles set out in section 3 of the access arrangement are fixed principles. We request further information from ActewAGL as to why these principles should be considered fixed principles for the purposes of Rule 99 of the NGR.

Revision 9.14 in section 9.5 outlines changes to the proposed access arrangement to give effect to this decision.

## **9.5 Revisions to the proposed carryover mechanism**

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

Revision 9.1:

Replace clause 3.1(c) with the following:

annual carryover amounts accrue in each Financial Year of the Subsequent Access Arrangement Period as the summation of the incremental efficiency gains (or losses) in the Applicable Access Arrangement Period that are carried forward for five years; and

Revision 9.2:

Replace clause 3.2 with the following:

The incremental efficiency gain (or loss) for the first year (year one) to the penultimate year (year four) of the Applicable Access Arrangement Period will be calculated using the following equation:

$$E_i = (F_i - A_i) - (F_{i-1} - A_{i-1})$$

where:

$E_i$  is the efficiency gain for financial year  $i$  of the Applicable Access Arrangement Period.

$F_i$  is the forecast operating expenditure for financial year  $i$  of the Applicable Access Arrangement Period.

$A_i$  is the actual operating expenditure for financial year  $i$  of the Applicable Access Arrangement Period.

$F_{i-1}$  is the forecast operating expenditure for financial year  $(i-1)$ .

$A_{i-1}$  is the actual operating expenditure for financial year  $(i-1)$ .

Revision 9.3:

Replace the definition of non-recurrent efficiency gains<sub>b</sub> in clause 3.3 with the following:

non-recurrent efficiency gains<sub>b</sub> means any non-recurrent efficiency gains which were achieved in the Base Year but removed by the Relevant Regulator for the purposes of forecasting operating expenditure for the Subsequent Access Arrangement Period on the basis that they were not likely to extend to years after the Base Year.

Revision 9.4:

Remove clause 3.4.

Revision 9.5:

Replace the definition of non-recurrent efficiency gains<sub>b</sub> in clause 3.5 with the following:

Non-recurrent efficiency gains<sup>b</sup> means any non-recurrent efficiency gains which were achieved in the Base Year but removed by the Relevant Regulator for the purposes of forecasting operating expenditure for the Subsequent Access Arrangement Period on the basis that they were not likely to extend to years after the Base Year.

Revision 9.6:

Remove clause 3.8(a)(i).

Revision 9.7:

Remove clause 3.8(a)(ii).

Revision 9.8:

Remove clause 3.8(b)(i).

Revision 9.9:

Remove clause 3.8(b)(ii).

Remove clause 3.8(b)(iii).

Revision 9.10:

Remove clause 3.8(b)(iv).

Revision 9.11:

Amend clause 3.8(b)(v)(A) to read “is not forecast using a single year revealed cost approach in the Access Arrangement Period immediately following this Access Arrangement (intended to commence 1 July 2021); and”

Amend clause 3.8(b)(v)(B) to read “the Relevant Regulator determines, as part of a decision on revisions to apply to this Access Arrangement (and following consultation processes associated with that decision), to exclude from the operation of the incentive mechanism because it is satisfied that it would not promote the National Gas Objective.”

Revision 9.12:

Amend clause 3.8(c) to read “the forecast operating expenditure amount for each year of Applicable Access Arrangement Period will be adjusted to include any Determined Pass Through Amounts or other AER approved expenditure arising from Cost Pass Through Events which apply in respect of that year.”

Revision 9.13:

Remove clause 3.9.

Revision 9.14:

Remove clause 5.1(a).