Attachment 10: Incentive mechanisms

Access Arrangement Information for the 2016-21 ACT, Queanbeyan and Palerang Access Arrangement

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10 Incentive mechanisms

Key points

- ActewAGL Distribution proposes to retain an incentive mechanism for operating expenditure (opex) for the 2016-21 access arrangement. The proposed efficiency benefits sharing scheme (EBSS) will provide a continuous incentive for ActewAGL Distribution to seek opex efficiencies and will ensure that the benefits (and losses) are shared with customers. The mechanism provides incentives for ActewAGL Distribution to reveal its efficient opex, which can then be used by the Australian Energy Regulator (AER) in determining the opex allowance for the next access arrangement period.
- The incentive mechanism in the 2010-15 access arrangement is defined for a period of five years. It is not designed to operate in 2015/16 (year 6, the extension year). ActewAGL Distribution proposes that no incentive mechanism should apply for 2015/16, and the new scheme should apply from 1 July 2016. ActewAGL Distribution has not added the $3.7 million carryover amount that was due in the extension year (2015/16) to the revenue building blocks for 2016-21.

Consumer benefits

- The proposed opex EBSS is in the long term interests of consumers because it provides continuous incentives, over time, for ActewAGL Distribution to seek opex efficiencies. Consumers benefit in the long run through sustained lower costs which are reflected in lower tariffs.

In this attachment ActewAGL Distribution explains its proposal for the treatment of the carryover amounts from the 2010-15 access arrangement period, and the proposed incentive mechanism for the 2016-21 access arrangement period.

10.1 Requirements of the National Gas Rules and National Gas Law

Under Rule 72(1)(i) of the National Gas Rules (Rules) the access arrangement information must include a proposal for the treatment of carryover amounts arising from the incentive mechanism that applied in the previous access arrangement period.

Under Rule 98, the 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. The incentive mechanism(s) must be consistent with the revenue and pricing principles, as set out in section 24 of the National Gas Law (NGL) (Rule 98(3)). Rule 72(1)(l) requires the access arrangement information to include the service provider's rationale for any proposed incentive mechanism.

These matters are addressed in the following two sections of this attachment.

In addition to the specific Rule requirements for incentive mechanisms, the overarching requirements of the NGL are also relevant. The AER must perform or exercise a function or power under the NGL or the Rules that relates to the making of an access arrangement decision in a manner that will or is likely to contribute to the achievement of the national gas objective (NGO).[1] Further, in making an access arrangement decision, the AER is required to:[2]

- determine the manner in which constituent components of the decision relate to each other and take those interrelationships into account in the making of the decision; and
- if there are 2 or more decisions that will or are likely to contribute to the achievement of the NGO, the AER must make the decision that it is satisfied will or is likely to contribute to the achievement of the NGO to the greatest degree.

The NGO is:

> *… to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas.*[3]

10.2 Treatment of carryover amounts from the 2010-15 incentive mechanism

The incentive mechanisms specified in ActewAGL Distribution's 2010-15 access arrangement (clause 4.5) are:

- that reference tariffs apply each year regardless of whether the cost and demand forecasts on which the reference tariffs were determined are realised; and
- a rolling carryover mechanism, that results in ActewAGL Distribution retaining the reward (penalty) associated with an efficiency improvements (losses) for five years after the year in which the gain (loss) was achieved. That is, a reward (being the net amount of the efficiency gains (or losses) relating to operating expenditure) earned in one year of an access arrangement period would be added to (or subtracted from) the total revenue and carried forward into the next access arrangement period if necessary, until it has been retained by ActewAGL Distribution for a period of five years.

In accordance with the rolling carryover mechanism prescribed in clause 4.6 of the 2010-15 access arrangement, ActewAGL Distribution has calculated the carryover amounts as shown in Table 1 below. ActewAGL Distribution proposes that the carryover amounts for each year of the 2016-21 access arrangement period, as shown in the final row of Table 1, be added to the revenue building blocks for that year. The revenue building blocks, including the carryover amounts, are shown in attachment 11 of this access arrangement information.

[1] NGL section 28(1)(a) and section 2(1) definition of 'AER economic regulatory function or power'.

[2] NGL section 28(2)(b)(ii) and (iii) and sections 2(1) and 244 definitions of 'reviewable regulatory decision', 'designated reviewable regulatory decision' and 'applicable access arrangement'.

[3] NGL section 23.

Table 1 shows a carryover amount of $3.7 million in 2015/16. However, as a result of the AER's extension of the revisions submission date, reference tariffs in place at 30 June 2015 will continue without variation from 1 July 2015 to 30 June 2016. This means that the carryover adjustment due in 2015/16 cannot be made in 2015/16. Given that the Rules do not require an adjustment, or true-up, of revenues or tariffs following the extension year, ActewAGL Distribution has not added the $3.7 million to the revenue building blocks for 2016-21. This is consistent with ActewAGL Distribution's treatment of other elements of the access arrangement, that is, no true-up of revenues following the extension year. The basis for this position is explained in attachment 11 to this access arrangement information.

Table 10.1 Carryover amounts from 2010-15 access arrangement

$ million	2010/11	2011/12	2012/13	2013/14	2014/15
Forecast opex for the incentive mechanism, $2009/10	15.9	18.0	18.6	18.6	18.0
Forecast opex for the incentive mechanism, $2015/16	18.4	20.8	21.6	21.6	20.9
Total actual opex, $2015/16	26.7	28.7	27.8	26.2	-
Excluded costs, $2015/16	6.0	8.5	7.7	8.3	-
Opex subject to the incentive mechanism, $2015/16	20.7	20.2	20.1	17.9	-
Incremental gain/loss ($2015/16)	-2.3	3.0	0.9	2.1	-
$ million (2015/16)	**2015/16***	**2016/17**	**2017/18**	**2018/19**	**2019/20**
Carryover amount	**3.7**	**6.0**	**3.0**	**2.1**	**-**

*In the EBSS template in the Regulatory Information Notice (RIN), the AER assumes that the staring year is 2016/17. However, ActewAGL Distribution has changed this to 2015/16, which ActewAGL Distribution considers is consistent with the underlying intention of the incentive mechanism and the formula set out in the 2010-15 access arrangement.

The incentive mechanism in clause 4.6 of the 2010-15 access arrangement is defined for a period of five years. It was not intended to apply in 2015/16 (the extension year). Given that no opex allowance has been set by the AER for 2015/16, the mechanism cannot operate as intended. ActewAGL Distribution therefore proposes that no carryover mechanism should apply in 2015/16. The mechanism should re-start for the 2016-21 access arrangement period, as described in the following section.

10.3 Proposed incentive mechanism for 2016-21

10.3.1 Demand forecast incentive mechanism

The incentive mechanism in clause 4.5(a) of the 2010-15 access arrangement, relating to the use of forecast demand in the access arrangement period, provides an incentive to develop the market and increase demand during the period. It is consistent with the revenue and pricing principles in the NGL and, in particular, it provides effective incentives to promote the efficient use of the pipeline.

However, ActewAGL Distribution considers that this incentive is already provided through the use of forecast demand in setting the revenue allowance and the X factors for the five-year access arrangement period and the use of lagged quantities in the weighted-average price cap (WAPC). The clause has therefore been removed from the incentive mechanism section of the 2016-21 access arrangement.

10.3.2 Opex incentive mechanism

ActewAGL Distribution proposes to retain an opex incentive mechanism in the 2016-21 access arrangement. The proposed mechanism retains the key features of the rolling carryover mechanism set out in clauses 4.5(b) and 4.6 of the 2010-15 access arrangement. It is referred to as an efficiency benefit sharing scheme (EBSS) in this access arrangement information, rather than the rolling carryover mechanism as in the 2010-15 access arrangement, to be consistent with terminology of the opex incentive scheme in place for electricity network service providers determined by the AER under rules 6.5.8 and 6A.6.5 of the National Electricity Rules (NER).[4]

Incentive mechanisms for opex are a central element of the AER approved incentive frameworks for most electricity and gas distribution networks. For electricity distribution networks, the EBSS provides continuous incentives over time for operating and maintenance efficiency improvements and provides for a sharing of benefits (or losses) between network businesses and their customers. Under an incentive scheme, network businesses have an incentive to continually seek efficiency improvements, which benefit consumers, and to reveal efficient costs. The revealed costs can be used by the AER in setting expenditure allowances. This is recognised in Rule 71(1) of the Rules (emphasis added):

> *In determining whether capital or operating expenditure is efficient and complies with other criteria prescribed by these rules, the AER may, without embarking on a detailed investigation,* ***infer compliance from the operation of an incentive mechanism*** *or on any other basis the AER considers appropriate*

The AER has approved opex incentive mechanisms for all the gas distribution networks that it regulates. The AER has noted the benefits of incentive mechanisms:[5]

> *When a service provider is rewarded for making efficiency gains, consumers benefit through lower prices in the next access arrangement period. This is because forecast opex in the next access arrangement period will reflect the service provider's lower level of opex in the current access arrangement period. As a result, regulated prices will be lower.*

Including an incentive mechanism in the 2016-21 access arrangement is consistent with the revenue and pricing principles in the NGL. In particular, it is consistent with the principle in section 24(3) of the NGL, being:

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[4] AER 2013, *Efficiency benefit sharing scheme for electricity distribution network service providers*, November.

[5] AER 2014, *Draft Decision Jemena Gas Networks (NSW) Ltd Access Arrangement 2015-20, Attachment 9, Efficiency Benefit Sharing Scheme*, November, p. 9-7.

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.*

In its draft decision on Jemena Gas Networks' (JGN) 2015-20 access arrangement, the AER recognised that an efficiency carryover mechanism would promote economic efficiency, consistent with the revenue and pricing principles. The AER stated:

> *… consistent with the revenue and pricing principles, we consider an efficiency carryover mechanism is needed to promote the efficient provision of pipeline services.*[6]

The AER confirmed its decision to approve the application of an efficiency carryover mechanism to JGN in its final decision on JGN's 2015–20 access arrangement.[7]

10.3.3 The design of the 2016-21 opex incentive mechanism

In the incentive mechanism in its 2016-21 access arrangement ActewAGL Distribution proposes to retain the central features of the opex incentive mechanism in its 2010-15 access arrangement. Under the proposed incentive mechanism, ActewAGL Distribution retains the benefit of efficiency gains derived from actual opex being lower, or incurs efficiency losses derived from actual opex being higher, than forecast opex in each year of the access arrangement period. The mechanism carries forward ActewAGL Distribution's incremental efficiency gains (or losses) for five years from the year those gains (or losses) occur. The carryover amounts will be an additional building block when ActewAGL Distribution's revenue allowance is determined for the subsequent access arrangement period.

ActewAGL Distribution proposes some revisions to the 2010-15 formulae for calculating incremental gains and losses and to the list of exclusions and adjustments contained in the incentive mechanism in its 2010-15 access arrangement. The revisions are designed to:

- clarify the operation of the mechanism;
- more closely align it with the AER's 2013 EBSS for electricity network service providers (AER's electricity EBSS);[8] and
- update the exclusions and adjustments.

[6] AER 2014, *Draft Decision Jemena Gas Networks (NSW) Ltd Access Arrangement 2015-20, Attachment 9, Efficiency Benefit Sharing Scheme*, November, p. 9-9.

[7] AER 2015, *Final Decision Jemena Gas Networks (NSW) Ltd Access Arrangement 2015-20, Attachment 9, Efficiency Benefit Sharing Scheme*, June, p. 9-5.

[8] AER 2013, *Efficiency benefit sharing scheme for electricity distribution network service providers*, November.

10.3.3.1 Calculating the incremental efficiency gains and losses

The following changes (highlighted in red) to the equations in the 2010-15 access arrangement are proposed to make the incentive mechanism in the 2016-21 access arrangement more consistent with the AER's electricity EBSS.

> Carryover amounts for year 5 of the Access Arrangement Period will be estimated using the following equation:
>
> $$E_5 = (F_5 - A_5^*) - (F_4 - A_4)$$

where:

> A_5^* is the estimate of actual opex for year 5 of the Applicable Access Arrangement Period and is estimated using the following equation:
>
> $A_5^* = F_5 - (F_b - A_b) + \text{non-recurrent efficiency gains}_b$
>
> F_5 is forecast opex for year 5 of the Applicable Access Arrangement Period.
>
> F_b is the forecast opex for the Base Year.
>
> A_b is the actual opex for the Base Year.
>
> Non-recurrent efficiency gains$_b$ 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 Applicable Access Arrangement Period on the basis that they were not likely to extend to years after the Base Year.

The use of the general terms F_b and A_b, instead of F_4 and A_4, is consistent with the AER's electricity EBSS, and contemplates the possibility that a year other than year 4 may be adopted as the base year. The addition of the term for the non-recurrent efficiency gains is also consistent with the AER's electricity EBSS.[9]

The proposed formula for calculating the efficiency carryover amount for the first year of the subsequent access arrangement period also refers to F_b and A_b, instead of F_4 and A_4.

$$E_6 = (F_6 - A_6) - (F_5 - A_5) + (F_b - A_b) + \text{non-recurrent efficiency gains}_b$$

The formula in the 2010-15 access arrangement for calculating the efficiency carryover for year 1 of the next access arrangement period does not contemplate an interval of delay at the end of the five-year access arrangement period. The revised access arrangement for 2016-21 includes a provision (in clause 3.9) that recognises the potential for an interval of delay.

10.3.3.2 Adjustments and exclusions

ActewAGL Distribution proposes to retain the exclusions and adjustments from the 2010-15 carryover mechanism, with some minor amendments and updates. The adjustments and exclusions represent changes in circumstances and changes in costs which are outside ActewAGL

[9] AER 2013, *Efficiency benefit sharing scheme for electricity distribution network service providers*, November, pp. 6-7.

Distribution's control and do not represent true efficiency gains or losses. The adjustments and exclusions are necessary to ensure that ActewAGL Distribution is given a reasonable opportunity to recover at least its efficient costs, as required under the revenue and pricing principles in section 24 of the NGL.

Under clause 3.8(a) of the 2016-21 access arrangement, the opex benchmarks used to calculate the carryover amount at the end of the regulatory period will be adjusted for:

- a change in the scope of the activities which form the basis of the determination of the original benchmarks; and/or
- a difference between forecast and actual connections; and/or
- any change in the classification of costs as capital expenditure (capex) or opex during the access arrangement period.

The proposed adjustments to the original benchmarks are consistent with those in ActewAGL Distribution's 2010-15 access arrangement and also the access arrangements approved by the AER for SPAusNet and Envestra in Victoria.[10]

ActewAGL Distribution will provide information in relation to any change in scope, to be assessed by the 'Relevant Regulator'[11], as part of the access arrangement information for the subsequent access arrangement period. This information will, without limitation, quantify and substantiate the impact of the scope changes on the original benchmarks.

The forecast opex for each year will be adjusted for any difference between the actual number of connections in a calendar year and the forecast number of connections for that year, multiplied by the opex per connection based on total opex divided by total connections. As set out in the access arrangement information, the opex per connection is $188 per year on average over the 2016-21 access arrangement period, a reduction from $208 per year on average over the 2010-15 access arrangement period (see section 5.1 of attachment 5).

ActewAGL Distribution notes that for JGN, the AER accepted the proposed adjustment for changes in the classification of costs (or capitalisation policy), but did not accept the proposed adjustment for differences between actual and forecast demand. In the draft decision for JGN, the AER said that an adjustment for differences between actual and forecast demand would be unnecessarily complex.[12] In the final decision, the AER added:

> *While we agree an adjustment for changes in demand would not have any major detriment, we have not been presented with a strong reason why changes in demand should be treated in a different way to most other changes in costs JGN faces during an access arrangement period. For*

[10] AER 2013, *Envestra Access Arrangement 2013-17, Final Decision, Attachment 8*; and AER 2013, *SP Ausnet Access Arrangement 2013-17, Final Decision, Attachment 8.*

[11] Defined in Schedule 1 of the 2016-21 access arrangement.

[12] AER 2014*, Jemena Gas Networks Draft Decision, Attachment 9*, November, pp. 9-11.

instance, JGN did not explain how its proposed approach would better contribute to achieving the revenue and pricing principles.[13]

ActewAGL Distribution does not agree that the adjustment would be unnecessarily complex. A continuation of the treatment which has applied for 2010-15, as set out above, would involve low administrative costs, which will be more than offset by the benefits of having an incentive scheme which provides incentives for properly measured efficiency gains.

If the adjustment for differences between forecast and actual connections is not retained in the 2016-21 access arrangement, ActewAGL Distribution will be penalised when connections exceed the forecast (to the extent that this results in higher than forecast opex), and rewarded for situations where demand falls below the forecast. This will be inconsistent with the revenue and pricing principles, and in particular the principle in section 24(3) of the NGL, which requires a service provider to be provided with effective incentives in order to promote economic efficiency, including efficient investment in and use of the pipeline, and the principle in section 24(7) of the NGL, which requires regard to be had to the economic costs and risks of the potential for under or over utilisation of the pipeline.

Under clause 3.8(b) of the 2016-21 access arrangement the following opex categories will be excluded from the operation of the incentive mechanism. The amounts in relation to these categories will be deducted from both the forecast opex and actual opex:

- debt raising costs;
- insurance costs (other than self insurance costs);
- superannuation costs;
- payments made in respect of non-controllable costs including (without limitation) levies, taxes, licences, UAG costs, carbon costs and other non-controllable costs as agreed between ActewAGL and the relevant regulator; and
- determined cost pass through amounts.

These exclusions are consistent with the exclusions approved by the AER for other gas distribution businesses,[14] and with ActewAGL Distribution's 2010-15 access arrangement.

ActewAGL Distribution notes that in the draft decision for JGN, the AER required an additional exclusion:

… we consider we need some discretion to exclude costs from the EBSS. We consider this is required where a category of opex is not forecast using a single year revealed cost approach in the access arrangement period commencing in 2020. We will only make such an exclusion when we are satisfied that JGN's consumers would not benefit from applying the efficiency carryover

[13] AER 2015, *Jemena Gas Networks Final Decision, Efficiency benefit sharing mechanism, Attachment 9*, June, p. 9-9.

[14] For example: *Access Arrangement for Envestra's Victorian Gas Distribution System 2013-17*, April 2013, section 4.13; and *Approved Access Arrangement for JGN's NSW Gas Distribution Networks 2015-21*, June 2015, section 12(h).

> *mechanism to that category of costs. This approach is consistent with the discretion we have to adjust the carryover amounts in our electricity network efficiency benefit sharing scheme.*[15]

JGN accepted this additional exclusion in its revised access arrangement revision proposal. ActewAGL Distribution has also included this additional exclusion in clause 3.8(b) of its proposed 2016-21 access arrangement, noting that it is consistent with the AER's electricity EBSS.

ActewAGL Distribution's forecast opex for EBSS purposes is provided in RIN tab 7.5. ActewAGL Distribution's completed RIN templates have been submitted to the AER with the access arrangement revisions proposal.

10.3.4 Capex incentive mechanism

ActewAGL Distribution's 2010-15 access arrangement does not include a capex incentive mechanism. ActewAGL Distribution notes that the AER has determined in previous access arrangement final decisions that it is not appropriate to include a capex incentive mechanism. For example, in its determination for ActewAGL Distribution's 2010-15 access arrangement the AER said:

> *… if an efficiency carryover mechanism is applied to capital expenditure and deferred capital expenditure cannot be excluded from the projected capital base then this delivers inappropriate incentives to defer capital expenditure to a later access arrangement period.*[16]

The AER has also determined that no capex incentive mechanism should apply in the access arrangements for Envestra (Victoria) and SP Ausnet. As well as the point about incentives to defer capex, the AER noted that its decision was influenced by the absence of a service standards incentive scheme (as applies in electricity). In the case of Envestra the AER commented:

> *In addition, the incentive to maintain service standards must also be considered. Ideally capex incentives would be balanced with an equal incentive to maintain or improve service levels. This would encourage efficiency driven capex reductions without a fall in service standards. Because service standard obligations are only loosely defined for gas distribution businesses, and no service standard incentive mechanism is in place, the AER considers Envestra does not have a balanced incentive to maintain service levels.*[17]

ActewAGL Distribution does not propose to include a capex incentive mechanism in the 2016-21 access arrangement.

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[15] AER 2014, *Jemena Gas Networks Draft Decision, Attachment 9*, November, p. 9-10.

[16] AER 2010, *ActewAGL Distribution Access Arrangement 2010-15, Final Decision*, p. 76.

[17] AER 2012, *Envestra Access Arrangement 2013-17, Draft Decision, Attachments*, p. 317.

Abbreviations used in this document

Abbreviation	Full term
AER	Australian Energy Regulator
capex	capital expenditure
EBSS	efficiency benefits sharing scheme
JGN	Jemena Gas Networks (NSW) Ltd
NER	National Electricity Rules
NGL	National Gas Law
Rules, the	National Gas Rules
NSW	New South Wales
opex	operating and maintenance expenditure
RIN	Regulatory Information Notice
WAPC	weighted-average price cap