



# **Efficiency benefit sharing scheme for the ACT and NSW 2009 distribution determinations**

February 2008

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## Shortened forms

AER	Australian Energy Regulator
DNSP	distribution network service provider
EBSS	efficiency benefit sharing scheme
MCE	Ministerial Council on Energy
NEL	National Electricity Law
NER	National Electricity Rules
opex	operating expenditure

# **1 Nature and authority**

## **1.1 Introduction**

This document sets out the Australian Energy Regulator's (AER's) efficiency benefit sharing scheme (EBSS) to be applied to the ACT and NSW distribution network service providers (DNSPs) for the regulatory control period commencing on 1 July 2009.

The AER is responsible for regulating the revenues and/or prices of DNSPs in the national electricity market (NEM) in accordance with the National Electricity Rules (NER), which were notified in the South Australian Gazette on 20 December 2007.

Within the NER, Chapter 6 deals with the classification and economic regulation of distribution services, while Chapter 6A deals with the economic regulation of transmission services. The Ministerial Council on Energy (MCE) has determined that transitional arrangements will apply to the preparation and assessment of the ACT and NSW 2009 distribution determinations. The transitional arrangements for the 2009–14 regulatory control periods for the ACT and NSW are set out in appendix 1 to Chapter 11 of the NER. Clause references in appendix 1 are numbered commencing with a six.

The NER distinguishes between the rules in Chapter 6 and Chapter 11 by referring to the Chapter 6 rules as 'general Chapter 6 rules,' and Chapter 11 rules as 'transitional Chapter 6 rules.' The AER has followed this convention in this document when referring to the two sets of rules.

## **1.2 Authority**

Clause 6.5.8(a) of the transitional Chapter 6 rules states that the AER may develop and publish a scheme or schemes (efficiency benefit sharing scheme) that provide for a fair sharing between NSW and ACT DNSPs and distribution network users of efficiency gains and losses.

Clause 6.5.8(d) of the transitional Chapter 6 rules states that the AER may, from time to time and with the agreement of each affected DNSP, amend or replace an efficiency benefit sharing scheme.

## **1.3 Role of the efficiency benefit sharing scheme**

The purpose of the EBSS is to share efficiency gains and losses between DNSPs and distribution network users. In the absence of an EBSS, the share of efficiency gains and losses received by a DNSPs declines as the regulatory control period progresses and, consequently, the incentive for the DNSP to improve the efficiency of its operating expenditure (opex) declines also.

The EBSS allows a DNSP to retain the benefits of an efficiency gain for the length of the carryover period regardless of the year of the regulatory control period in which the gain was initiated. After the length of the carryover period the benefits of an efficiency gain are 'shared' with distribution network users. By doing so the EBSS provides a DNSP with a constant incentive to improve the efficiency of its opex and thus reveal their efficient level of opex.

## **1.4 Confidentiality**

The AER's obligations regarding confidentiality and the disclosure of information provided to it by a DNSP are governed by the Trade Practices Act 1974, the National Electricity Law (NEL) and the NER.

## 2 Efficiency benefit sharing scheme for operating expenditure

This chapter sets out the AER's approach to providing incentives for a DNSP to improve the efficiency of its opex and share any resulting efficiency gains or losses with distribution network users.

The incentive for a DNSP to reduce its opex is derived from three different factors:

1. The fact that the AER will not claw back any differences between forecast and actual opex that arise during the regulatory control period.
2. The manner in which the AER uses information on past opex when determining whether the forecast expenditure proposed by a DNSP for the next regulatory control period is efficient.
3. The EBSS.

### 2.1 Objectives

In accordance with the transitional Chapter 6 rules, the AER has developed and published an EBSS that provides for a fair sharing between DNSPs and distribution network users of both opex efficiency gains and losses.

Clause 6.5.8(c) of the transitional Chapter 6 rules requires that the AER, in developing and implementing an EBSS, must have regard to:

- the need to ensure that benefits to consumers likely to result from the scheme are sufficient to warrant any reward or penalty under the scheme for DNSPs
- the need to provide DNSPs with a continuous incentive, so far as is consistent with economic efficiency, to reduce opex and, if the scheme extends to capital expenditure, capital expenditure
- the desirability to both reward DNSPs for efficiency gains and penalising DNSPs for efficiency losses
- any incentives that DNSPs may have to capitalise expenditure
- the possible effects of the scheme on incentives for the implementation of non-network alternatives.

The EBSS rewards sustained efficiency gains through the operation of a symmetrical carryover mechanism that allows a DNSP to retain the benefits of an efficiency gain for the length of the carryover period regardless of the year of the regulatory control period in which the gain was initiated.

A DNSP facing a potential efficiency gain should not perceive a material advantage in either deferring or advancing an efficiency gain or loss. The DNSP should, instead, face an essentially constant benefit or cost from implementing a gain or loss as it arises. The measurement of gains and losses should not be affected by artificial means such as the shifting of costs between years, but should represent genuine business outcomes that have arisen in the ordinary course of conducting the business in a prudent and diligent manner.

## 2.2 The expenditure allowance for the regulatory control period beginning in 2014

The AER considers that it is not appropriate, when determining the efficient opex allowance for future regulatory control periods, to relate future targets to past outcomes on a purely mechanistic basis. That is, the AER will not require forecast opex for the 2014–19 regulatory control period to be equal to actual opex in the fourth year of the 2009–14 regulatory control period.

Chapter 6 of the NER sets out the matters that must be addressed when a DNSP proposes to the AER the level of efficient opex to apply in the regulatory control period 2014–19. When assessing the forecasts proposed by ACT and NSW DNSPs for the 2014–19 regulatory control period, the AER will consider all of the objectives, criteria and factors required by the NER.

In assessing the forecasts the AER will place significant weight on the actual expenditure in the fourth year of the 2009–14 regulatory control period. With the EBSS providing incentives for DNSPs to reveal their efficient level of opex, the AER considers actual opex in the fourth year of the 2009–14 regulatory control period to be the best indicator of the efficient level of opex that will be available when forecast opex will be determined for the 2014–19 regulatory control period.

## 2.3 The efficiency benefit sharing scheme

This section describes how the AER will calculate efficiency gains or losses using the EBSS, and the method by which gains or losses are shared between DNSPs and distribution network users.

The AER will calculate an efficiency gain or loss in the first year of the regulatory control period as follows:

$$E_1 = F_1 - A_1$$

where the parameter  $A_1$  is the actual opex incurred by the DNSP for year 1 of the regulatory control period and the parameter  $F_1$  is the forecast opex accepted or substituted by the AER for that year in the relevant revenue determination.

Gains or losses that arise in the second and subsequent years of the regulatory control period will be calculated as:

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

$E_t$  is the efficiency benefit/loss in year  $t$

$A_t, A_{t-1}$  are the actual, or adjusted actual, opex incurred in years  $t$  and  $t-1$  respectively,

$F_t, F_{t-1}$  are the forecast, or adjusted forecast, opex accepted or substituted for the years  $t$  and  $t-1$  respectively.



The sample calculations contained in appendix A illustrate the calculation process that underpins the EBSS and is based on unadjusted amounts. The adjusted efficiency benefit/loss for each year will be retained by the DNSP for the length of the carryover period following the year in which it was incurred, after which the total value of the gain or loss is removed from the DNSP's expenditure forecast and notionally 'shared' with distribution network users. Because of the forward-looking nature of the EBSS, the sharing of efficiency gains or losses will not occur until 2014–19, the regulatory control period immediately following the implementation of the EBSS.

The efficiency benefit sharing calculation will be undertaken in such a way as to ensure inflation does not erode the value of any benefit/loss to be retained by the DNSP. Price indices used in the calculation must be consistent with those used in the revenue determination applicable to the same regulatory control period.

### **2.3.1 Final year adjustment**

As the distribution determination for the 2014–19 regulatory control period will be made prior to the completion of the 2009–14 regulatory control period, the AER will estimate the actual opex required to calculate gains or losses for the final year of the 2009–14 regulatory control period as follows:

$$A_5 = F_5 - (F_4 - A_4)$$

Where differences arise between this estimate and the actual expenditure amount of the final year, the efficiency gain or loss in the first year of the 2014–19 regulatory control period will be adjusted as follows:

$$E_6 = (F_6 - A_6) - (F_5 - A_5) + (F_4 - A_4)$$

### **2.3.2 Adjustments to forecast operating expenditure allowances for the purposes of calculating carryover amounts**

In calculating the benefits or losses to be carried over, the measurement of actual expenditure over the regulatory control period must be done using the same cost categories and methodology used to calculate the forecast expenditure for that period. Adjustments will be made where necessary to correct for variances in cost categories and methodologies, and errors.

If capitalisation policies during the regulatory control period have changed, the DNSP must adjust the forecast opex used to calculate the carryover amounts so that the forecast expenditures are consistent with the capitalisation changes. A DNSP must provide a detailed description of the changes in capitalisation policies and a calculation of the impact of those changes in capitalisation policy.

For the purposes of calculating the carryover amounts, the forecast opex must be adjusted for the cost consequences of the difference between forecast and actual demand growth over the regulatory control period. These adjustments must be made using the same relationship between growth and expenditure used in establishing the forecast opex. Adjustments must only be applied to those components of opex that have a direct relationship to growth.

The AER considers it is appropriate for the EBSS to focus on controllable costs but notes that it is a difficult exercise to adequately define in advance all costs that may, or may not, be included in the EBSS. The AER will, therefore, permit a DNSP to propose a range of additional cost categories to be excluded from the operation of the EBSS. These categories must be specific to the business, involve an identifiable reason for being excluded and should not involve an ongoing business activity. A DNSP must propose cost categories to be excluded from the scheme in their regulatory proposal for the 2009–14 regulatory control period.

A proposal to exclude cost categories must be reasonable and must not seek to exclude categories of costs that could otherwise be regarded as controllable costs including, for example, labour and materials costs and service provider costs. Proposed adjustments to the forecast opex will only be accepted if they are for changes in costs that the AER deems to be uncontrollable and will not adversely impact the operation of the EBSS. Cost categories accepted as uncontrollable by the AER will be excluded from the calculation of carryover amounts at the end of the 2009–14 regulatory control period.

Allowed increases or decreases in actual expenditures associated with recognised pass through events will be excluded from the actual and forecast expenditure amounts used to calculate carryover gains or losses under the EBSS.

The opex forecast must include any necessary adjustments for changes in responsibilities that result from compliance with a new or amended law or licence, or other statutory or regulatory requirement. This may include requirements that can be demonstrated to arise directly from a recognised policy, practice or policy generally applicable to similar firms participating in the National Electricity Market.

In calculating carryover gains or losses, the AER must be satisfied that the actual and forecast opex accurately reflects the costs faced by the DNSP in the regulatory control period.

### **2.3.3 Carryover period**

The AER will adopt a carryover period equal to the regulatory control period (five years) to calculate the carryover amounts.

### **2.3.4 Application of carryovers**

Subject to the adjustments noted, the AER will apply all carryovers, both positive and negative. Carryover amounts will be included as a building block element in the calculation of allowed revenue for the regulatory control period commencing on 1 July 2014.

## **2.4 DNSP-specific EBSS**

This EBSS applies to all DNSPs in the ACT and NSW. Business-specific schemes have not been applied in this release of the scheme. A DNSP wishing to propose an individual variation to the EBSS to apply to its business may do so according to section 2.5 of this scheme below.

## **2.5 Review or amendment of the EBSS**

Clause 6.5.8(d) of the transitional Chapter 6 rules provide scope for the AER to amend this EBSS with the agreement of each affected DNSP. The AER may carry out such consultation in connection with the amendment of an EBSS as the AER deems appropriate.

Further, the AER may monitor and collect information from any or all of the ACT and NSW DNSPs on matters relevant to be included in an EBSS for the purpose of developing, amending or applying an EBSS for the regulatory control period commencing on 1 July 2014.

## Appendix A: Example of the efficiency benefit sharing scheme calculation

Year	1	2	3	4	5	6	7	8	9	10
Forecast expenditure	101	100	103	100	101	93	93	93	93	93
Actual	100	99	94	93	94 <sup>(a)</sup>					
Incremental gain/loss	1	0	8 <sup>(b)</sup>	-2	0	(c)				
Efficiency carryover										
Year 1		1	1	1	1	1				
Year 2			0	0	0	0	0			
Year 3				8	8	8	8	8		
Year 4						-2	-2	-2	-2	-2
Year 5						0	0	0	0	0
Carry forward amounts						7	6	6	-2	0
Expenditure used for pricing purposes	101	100	103	100	101	100	99	99	91	93

Note: All figures are in real terms.

- (a) This figure is an estimate only because the actual opex amount is not known at the time of the regulatory reset. This estimate has been calculated using the equation:

$$\begin{aligned}
 A_5 &= F_5 - (F_4 - A_4) \\
 &= 101 - (100 - 93) \\
 &= 94
 \end{aligned}$$

The correction for this estimate, which has been omitted for simplicity, will impact the incremental gain/loss for year 6 and thus the carryover amount for year 11.

- (b) 
$$\begin{aligned}
 E_3 &= (F_3 - A_3) - (F_2 - A_2) \\
 &= (103 - 94) - (100 - 99) \\
 &= 8
 \end{aligned}$$

- (c) The incremental gain/loss for year 6 will be calculated using the following formula:

$$E_6 = (F_6 - A_6) - (F_5 - A_5) + (F_4 - A_4)$$