Final

Electricity transmission network service providers

Efficiency benefit sharing scheme

September 2007

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Amendment record

Version	Date	Pages
1	30 September 2007	10

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Shortened forms

AER	Australian Energy Regulator
NER	National Electricity Rules
scheme	efficiency benefit sharing scheme
TNSP	transmission network service provider

1. Nature and authority

1.1 Introduction

Consistent with the requirements of clause 6A.6.5 of the National Electricity Rules (NER), this document sets out the Australian Energy Regulator's (AER) efficiency benefit sharing scheme (scheme) for electricity transmission network service providers (TNSPs).

1.2 Authority

Clause 6A.6.5 of the NER requires the AER to develop the scheme in accordance with the *transmission consultation procedures*.

1.3 Role of this scheme

(a) This document defines the scheme and associated efficiency benefit sharing parameters.

(b) The obligation of a TNSP to comply with the scheme:

  (1) is additional to any obligation imposed under any other law applying to a TNSP

  (2) does not derogate from such an obligation.

1.4 Confidentiality

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

1.5 Definitions and interpretation

(a) In this scheme, the words and phrases presented in italics are defined in the NER.

(b) Explanations in this scheme about why certain information is required are provided for guidance only.

1.6 Processes for revision

The AER may amend or replace this scheme from time to time in accordance with clause 6A.6.5(f) of the NER and the *transmission consultation procedures*.

1.7 Version history and effective date

A version number and an effective date of issue will identify every version of this scheme.

2. Efficiency benefit sharing scheme for operating expenditure

2.1 Introduction

This section sets out the AER's approach to providing incentives for a TNSP to reduce its operating expenditure and the sharing of any resulting efficiency gains or losses between the TNSP and *transmission network users*.

The incentive for a TNSP to reduce its operating expenditure is derived from three different factors:

1. The fact that the AER will not claw back any differences between forecast and actual operating expenditure which arise during the *regulatory control period*.

2. The manner in which the AER makes use of information on past operating expenditure when determining whether the forecast expenditure proposed by a TNSP for the next *regulatory control period* is efficient.

3. The *efficiency benefit sharing scheme.*

2.2 Objectives

Clause 6A.6.5(a) requires that the AER must develop an *efficiency benefit sharing scheme* that provides for a fair sharing between TNSPs and *transmission network users* of both the efficiency gains and losses.

Clause 6A.6.5(b) of the NER requires that the AER, in developing and implementing an *efficiency benefit sharing scheme*, must have regard to:

1. The need to provide TNSPs with a continuous incentive (that is equal in each year of any *regulatory control period*) to reduce operating expenditure.

2. The desirability of both rewarding TNSPs for efficiency gains and penalising TNSPs for efficiency losses.

3. Any incentives that TNSPs may have to inappropriately capitalise operating expenditure.

This scheme rewards sustained efficiency gains through the operation of a symmetrical carryover mechanism that allows a TNSP 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 is initiated.

A TNSP facing a potential efficiency gain should not perceive a material advantage in either deferring or advancing an efficiency gain or loss. The firm 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.

2.3 The expenditure allowance for the next regulatory control period

The AER believes that it is not appropriate when determining the efficient operating expenditure allowance for future *regulatory control period*s to relate future targets to past outcomes on a purely mechanistic basis.

Clause 6A.6.6 of the NER sets out the matters that must be addressed when a TNSP makes a proposal to the AER as to the level of efficient operating expenditure that might apply in the next *regulatory control period*. The process of setting operating expenditure allowances for the next *regulatory control period* must be conducted according to the requirements set out in clause 6A.6.6 and the further requirements detailed in the submission guideline.

The AER must be satisfied that the forecast operating expenditure of a TNSP meets the *operating expenditure criteria* set out in clause 6A.6.6(c) of the NER. The submission guideline requires a TNSP to submit with its proposal detailed supporting evidence setting out clearly why the proposed level of operating expenditure should be regarded as efficient.

The following paragraphs from section 4.3.4(c) of the submission guideline are repeated here for convenience only. In the event of any inconsistency, the requirements of clause 6A.6.6 and the submission guideline prevail.

> (c) In determining whether the *AER* is satisfied with the forecast operating expenditure proposed by a *TNSP*, clause 6A.6.6(e) of the *NER* requires the *AER* to have regard to ten *operating expenditure factors*. The following requirements of the operating expenditure forecasting process are relevant to the *efficiency benefit sharing scheme*:
>
> (1) The past expenditure profile of a *TNSP* may vary and it may be uneven. An uneven expenditure profile may arise for legitimate operational reasons or, in some circumstances, may indicate cost-shifting. The *AER* will require that a business provide an explanation for the profile of expenditure sufficient to demonstrate that the operating expenditure incurred in the regulatory period is related to operational needs as they arose and does not entail instances of cost-shifting.
>
> (2) A *TNSP* must provide a detailed description of any changes in capitalisation policies that have arisen in the current *regulatory control period*, or

that are proposed to apply in the next *regulatory control period*. This description must be accompanied by a calculation of the impact of those changes in capitalisation policy. If the *AER* is not satisfied that a change in capitalisation policy is appropriate, it may adjust the forecast operating expenditure allowance of the *TNSP* as allowed by clause 6A.6.6(f) of the *NER*.

(3) The operating expenditure 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, including a requirement 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*.

(4) A *TNSP* must include in its *revenue proposal* its proposed basis for accounting for growth in demand in the next *regulatory control period*. This must be accompanied by evidence that the proposed adjustment mechanism accurately reflects the impact of changes in expected growth in demand from a baseline forecast (positive and negative) on operating expenditure.

The AER considers it is appropriate for the scheme 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 scheme. The AER will, therefore, permit a regulated business to propose a limited range of additional cost categories that should be excluded from the operation of the scheme. These categories must be specific to the business, involve an identifiable reason for being excluded and should not involve an on-going business activity.

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. A proposal to exclude cost categories deemed to be unreasonable may be rejected in its entirety. Cost categories listed in section 2.4.2 of the *efficiency benefit sharing scheme* guideline or additional cost categories set out in a determination of the AER will be excluded from the operation of the scheme.

If the AER is not satisfied that the TNSP's estimate of operating expenditure meets the *operating expenditure criteria*, clause 6A.6.6(d) requires that the AER must not accept the forecast of required operating expenditure. Clause 6A.6.6(f) requires that if the AER does not accept the forecast required operating expenditure, it must use a substituted forecast of required operating expenditure. If the AER does not accept the required operating expenditure proposed by the TNSP or any of the proposed adjustments or adjustment mechanisms to it, the AER will use a process, to be

decided on a case-by-case basis, to determine the substituted forecast operating expenditure.

2.4 The efficiency benefit sharing scheme

This section describes how the AER will calculate efficiency gains or losses using the relevant efficiency benefit sharing parameters, and the method by which gains or losses are shared between TNSPs and *transmission network users*. It also gives further details of the mechanisms that will be employed to make adjustments to the forecast and actual operating expenditure used in the base-line calculation of carryover amounts.

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 operating expenditure incurred by the TNSP for year 1 of the *regulatory control period* and the parameter F_1 is the forecast operating expenditure 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:

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

where:

E_t is the efficiency benefit/loss in year t

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

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

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

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 TNSP. Price indices used in the calculation must be consistent with those used in the *revenue determination* applicable to the same *regulatory control period*.

2.4.1 Final year adjustment

As the *revenue determination* for the next *regulatory control period* will usually occur prior to the completion of the current period, the AER will estimate the actual operating expenditure required to calculate gains or losses for the final year of the current 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 following *regulatory control period* will be adjusted as follows:

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

2.4.2 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 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 the cost categories and methodology, and errors.

If capitalisation policies during the *regulatory control period* have changed, the TNSP must adjust the forecast operating expenditures used to calculate the carryover amounts so that the forecast expenditures are consistent with the capitalisation policy changes. A TNSP 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 operating expenditure 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 operating expenditure. Adjustments must only be applied to those components of operating expenditure that have a direct relationship to growth.

In calculating carryover gains or losses, the AER will consider other adjustments to the forecast operating expenditure as proposed by the TNSP for cost categories previously approved by the AER. Proposed adjustments to the forecast operating expenditure will only be accepted if they are for changes in costs that the AER has deemed to have been uncontrollable and will not adversely impact the operation of the scheme.

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 this scheme.

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

2.4.3 Carryover period

The length of the carryover period, in conjunction with the *weighted average cost of capital*, influence the sharing ratio of gains and losses between *transmission network users* and the TNSP. A five-year carryover period results in a benefit-sharing ratio of approximately 30:70 between the TNSP and *transmission network users* respectively. A ten-year carryover period results in a ratio of approximately 50:50.

The AER will adopt a nominal carryover period of five years to calculate the carryover amounts except where the AER has approved a longer *regulatory control period*. Where the AER approves a longer *regulatory control period* for a business, the AER will also consider permitting a longer carryover period, not exceeding ten years.

2.4.4 Application of carryovers

Subject to the adjustments noted, the AER will apply all carryovers, both positive and negative.

2.5 Parameters

The *efficiency benefit sharing scheme parameters* referred to in section 2.4 apply universally to businesses subject to this scheme. Business-specific parameters have not been applied in this release of the guideline. A TNSP wishing to propose an individual variation to the scheme to apply to its business may do so according to section 2.6.

2.6 Review or amendment of the scheme

Under clause 6A.6.5 of the NER and the *transmission consultation procedures*, the AER may amend this scheme. The *efficiency benefit sharing scheme parameters* can vary between TNSPs and over time.

While this scheme can be amended at any time, an amendment cannot apply to a TNSP for a *regulatory control period* unless it is promulgated no less than 15 months before the commencement of that *regulatory control period* (the 'cut off date').

Amendments to this scheme can be initiated by the AER or proposed by a TNSP. However, a TNSP that wants the AER to amend this scheme for its next *regulatory control period* will need to submit proposed amendments to the AER in the timeframes and in the manner set out below.

To ensure that the *transmission consultation procedures* can be completed before the cut off date, a TNSP must submit any proposed amendments to the AER at least 22 months before the commencement of the next *regulatory control period* (i.e. nine months before its *revenue proposal* is due to be lodged with the AER).

A proposal by a TNSP to amend this *scheme* must:

1. Demonstrate how the proposed amendment is consistent with the objectives of this scheme.

2. Provide information and quantitative data on its performance history of at least the most recent five years as measured by its proposed scheme.

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[a]					
Incremental gain/loss	1	0	8[b]	-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 operating expenditure amount is not known at the time of the regulatory reset. This estimate has been calculated using the equation:

$$A_5 = F_5 - (F_4 - A_4)$$
$$= 101 - (100 - 93)$$
$$= 94$$

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) $$E_3 = (F_3 - A_3) - (F_2 - A_2)$$
$$= (103 - 94) - (100 - 99)$$
$$= 8$$

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

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