Guideline on control mechanisms for direct control services for the ACT and NSW 2009 distribution determinations

February 2008

AUSTRALIAN ENERGY REGULATOR

Amendment record

Version	Date	Pages
1	**29 February 2008**	**12**

Contents

Shortened forms ..... **iii**

1 Nature and authority **1**

1.1 Introduction 1
1.2 Authority 1
1.3 Role of the mechanism 2
1.4 Confidentiality 2

2 The control mechanisms **3**

2.1 Standard control services in the ACT 3
2.1.1 The control mechanism 3
2.2 EnergyAustralia prescribed (transmission) standard control services 6
2.3 Standard control services in NSW 7
2.3.1 The control mechanism 7

Appendix A: Side constraints **10**

Appendix B: Transmission cost recovery tariffs **12**

Shortened forms

ABS	Australian Bureau of Statistics
ACCC	Australian Competition and Consumer Commission
AER	Australian Energy Regulator
CPI	consumer price index
DNSP	distribution network service provider
DUOS	distribution use of system
ICRC	Independent Competition and Regulatory Commission (ACT)
IPART	Independent Pricing and Regulatory Tribunal (NSW)
MAR	maximum allowed revenue (in reference to NSW DNSPs) or maximum average revenue (in reference to the ACT DNSP)
MCE	Ministerial Council on Energy
NEL	National Electricity Law
NEM	national energy market
NER	National Electricity Rules
TNSP	transmission network service provider
TUOS	transmission use of system

1 Nature and authority

1.1 Introduction

This guideline sets out the control mechanisms for direct control services for distribution network service providers (DNSPs), to apply to the 2009–14 ACT and NSW distribution determinations.

The Australian Energy Regulator (AER) is responsible for regulating the revenues and/or prices of distribution network service providers (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. This guideline will only apply to the transitional period, 2009–14.

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.

Direct control services are divided into two categories under transitional Chapter 6 of the National Electricity Rules (NER): standard control services and alternative control services. This guideline applies to standard control services only, the Australian Energy Regulator's (AER) guideline on alternative control services will be published separately.

1.2 Authority

Clause 6.2.8(a)(2) of the transitional Chapter 6 rules provides that the AER may publish a guideline as to the control mechanism for direct control services.

> **6.2.8 Guidelines**
>
> (a) The AER may publish guidelines as to:
>
> …(2) the control mechanisms for direct control services…

Clause 6.2.8(c) of the transitional Chapter 6 rules states that this guideline is not binding on the AER or DNSPs, however, if the AER's distribution determination is not in accordance with this guideline, the AER will be required to state its reasons for departing from this guideline in its reasons for the distribution determination.

1.3 Role of the mechanism

Under clauses 6.2.4 and 6.2.5 of the transitional Chapter 6 rules, the AER is to make a distribution determination for each DNSP that imposes controls over the prices, or revenue, of direct control services, or both, of each DNSP. The control mechanism is the means by which the AER will impose controls over the prices and/or revenues of direct control services.

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 The control mechanisms

2.1 Standard control services in the ACT

For standard control services in the ACT, the AER will apply the average revenue constraint that was applied by the Independent Competition and Regulatory Commission (ICRC) in the 2004–09 regulatory control period, with the following exceptions:

- The AER will apply side constraints to the distribution component of individual network tariffs, as required under the transitional Chapter 6 rules. The side constraint formula is provided at appendix A.
- In assessing compliance with the above side constraint, the AER will disregard the recovery of revenue to accommodate the pass through of charges for transmission use of service (TUOS) services to customers.

The AER may allow adjustments to this formula to recognise any demand management incentives and/or service target performance incentives.

2.1.1 The control mechanism

The control mechanism applied to prescribed distribution services in the ACT is set out in the ICRC's *Final decision: Investigation into electricity distribution services in the ACT, March 2004*. The form of control is a maximum average revenue cap. This constraint is expressed as the maximum allowed annual revenue for network services, per kilowatt hour.

To set the initial average revenue allowance for the first year of the 2004–09 regulatory control period (2004–05), the ICRC determined a building block revenue requirement for prescribed distribution services for each year of the 2004–09 regulatory control period. An opening maximum average revenue of $0.0383 per kilowatt hour was determined by applying a P–nought factor of –6.8 in the first regulatory year. In each subsequent year of the regulatory control period, the maximum average revenue is escalated using a *CPI–X* mechanism, where the X-factor is zero. The average revenue cap for prescribed distribution services in any given year is determined using the following equation:

$$\text{Maximum average revenue per kWh}_t = \left(1 + \left(CPI_t + X\right)\right) \times \left(MAR_{t-1}\right)$$

Where:

- MAR_{t-1} is the maximum average revenue allowance for the previous year
- *CPI* means the all groups index number for the weighted average of eight capital cities as published by the Australia Bureau of Statistics (ABS), or if the ABS does not or ceases to publish the index, then CPI will mean an index which the AER considers is the best estimate of the index

The CPI value used for escalating the maximum average revenue each year is determined using the following formula:

$$CPI_t = \frac{\left(CPI_{March(t-2)} + CPI_{June(t-2)} + CPI_{September(t-1)} + CPI_{December(t-1)}\right)}{\left(CPI_{March(t-3)} + CPI_{June(t-3)} + CPI_{September(t-2)} + CPI_{December(t-2)}\right)} - 1$$

The maximum average revenue cap is used to determine the total revenue allowance for the purposes of setting prices for prescribed distribution services including distribution use of system (DUOS) charges and miscellaneous services.

Prescribed distribution services revenue cap

The total prescribed distribution services revenue cap for each year of the regulatory control period is derived by applying the *CPI–X* escalation to the average revenue allowance for year *t–1* and multiplying this by actual energy sales (kWh) in the previous calendar year. Charges for all prescribed services (DUOS and miscellaneous services) must be set to comply with this constraint. Table 1 illustrates the composition of the revenue cap for prescribed distribution services, using hypothetical values.

Table 1 – Example calculation of prescribed services revenue cap

Maximum average revenue –financial year *t*	**$0.0375**
* Energy sales (kWh) year *t–1* calendar	2,643,549,261
Prescribed distribution services revenue cap *t* (for year t prices, based on *t–1* calendar year actual sales)	$99,133,097
Proposed miscellaneous charges for miscellaneous services *t* (proposed prices for financial year *t* multiplied by *t–1* calendar year actual sales)	($1,063,284)
Allowed pass through amounts *t* (adjusted to *t–1* calendar year sales)[1]	$5,684,206
Distribution use of system cap *t* (proposed tariffs for financial year *t* multiplied by *t–1* calendar year actual sales)	$103,754,019
Forecast TUOS charges *t* (estimated TUOS charges for financial year *t* multiplied by *t–1* calendar year sales)	$19,456,758
Cap for setting NUOS charges *t* (proposed tariffs for financial year *t* multiplied by *t–1* calendar year actual sales)	$123,210,777

Distribution use of system charges

Table 1 above illustrates that the cap for DUOS services is derived by subtracting the miscellaneous services revenue for financial year *t* (derived by multiplying proposed prices by actual sales in the previous calendar year) from the total prescribed distribution services revenue cap, and adding any allowed pass through amounts. This returns the DUOS cap which must be observed when setting DUOS charges.

[1] For example, amounts associated with the ACT Utilities Network Facilities Tax.

Compliance with the DUOS revenue cap is assessed by multiplying the proposed DUOS tariffs for the coming year, by actual sales in each tariff category from the previous calendar year.

Charges for miscellaneous services

Miscellaneous services represent a range of network services including, but not limited to, re–energising and de–energising lines, temporary connections, repositioning of services and issuing of electrical drawings. Prices for miscellaneous services are regulated under the overall prescribed distribution services revenue cap.

Like the proposed DUOS charges, the proposed charges for miscellaneous services for year *t* is checked for compliance with the revenue constraint for year *t* prices by multiplying the proposed prices for the coming year by actual sales in the previous calendar year, for each service.

Compliance with the average revenue cap

To determine compliance with the prescribed services cap the AER will assess ActewAGL's proposed tariffs for all prescribed DUOS services using the following formula, as applied by the ICRC:

$$\text{Maximum average revenue (kWh)}_t \geq \sum \frac{\left(\text{total energy sales}^n_{t-1} \times \text{proposed tariff}^n_t\right)}{\text{kilowatt hours transported}_{t-1}}$$

Where:

- n is customer classes
- total energy sales and kilowatt hours transported are actual figures for the previous calendar year sold in the ACT by ActewAGL distribution and confirmed by NEMMCO.[2]

[2] Note: Please see the discussion on the AER's requirement for audited quantity data in section 5.4 of the AER's *Final decision on the control mechanism for direct control services*

2.2 EnergyAustralia prescribed (transmission) standard control services

The AER will apply the same revenue cap formula to EnergyAustralia prescribed (transmission) standard control services as that applied by the ACCC in the 2004–09 regulatory control period to EnergyAustralia's transmission services, being:

$$MAR = (AR_t) \pm \left[\frac{(AR_{t-1} + AR_{t-2})}{2} \times S_{ct} \right] \pm (pass\ through)$$

Where:

MAR is the maximum allowed revenue

AR is the annual revenue

S is the service standards factor

t is the time period on a financial year basis

ct is the time period on a calendar year basis

The AER may allow adjustments to the revenue cap for EnergyAustralia prescribed (transmission) standard control services for revenue increments or decrements as a result of a service target performance incentive scheme. The term

$$\left[\frac{(AR_{t-1} + AR_{t-2})}{2} \times S_{ct} \right]$$

in the above formula will remain unless the AER decides not to apply a service target performance incentive scheme for EnergyAustralia prescribed (transmission) standard control services as part of its distribution determination.

The transitional Chapter 6 rules do not allow adjustments to the revenue cap for contingent projects. However, adjustments for pass through events are allowed. A list of pass through events are defined in clause 11.6.19(d) and (e) of the transitional Chapter 6 rules.

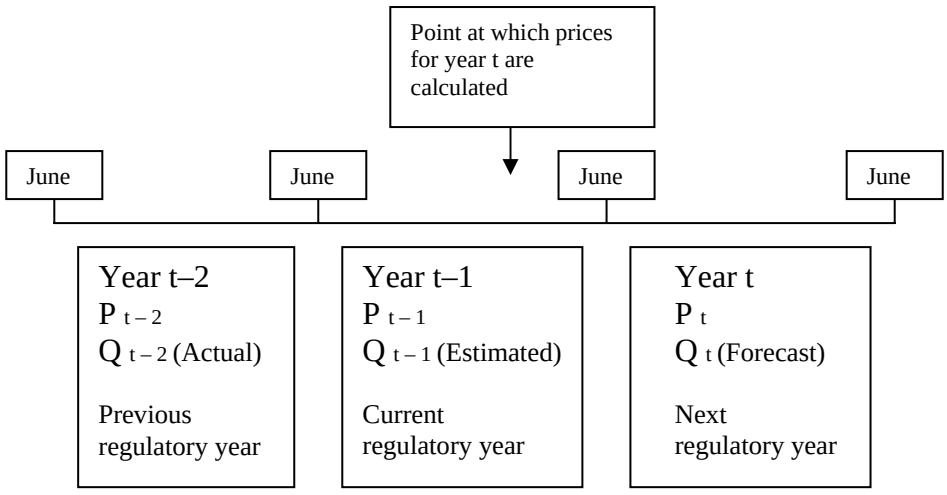
In addition to this list, the transitional Chapter 6 rules provide that the AER may nominate an event as a pass through event in the determination. The AER will provide for adjustments to the revenue cap for any pass through events defined in the transitional Chapter 6 rules or in its distribution determination.

The transitional Chapter 6 rules provide that the pricing arrangements under Chapter 6A, rather than transitional Chapter 6, will apply to EnergyAustralia prescribed (transmission) standard control services. Therefore, the side constraints required under the transitional Chapter 6 rules will not be applied to the pricing arrangements for these services.

2.3 Standard control services in NSW

For standard control services in NSW, the AER will apply the formula that was applied by the Independent Pricing and Regulatory Tribunal (IPART) in the 2004–09 regulatory control period, with the following exceptions:

- The AER will not apply the price limits imposed by IPART (both those expressed in percentage terms and dollar terms)
- The AER will apply side constraints to the distribution component of individual network tariffs, as required under the transitional Chapter 6 rules. The side constraint formula is provided at appendix A.
- In assessing compliance with the above side constraint, the AER will disregard the recovery of revenue to accommodate the pass through of charges for TUOS services to customers.
- The AER will redefine the year references within the weighted average price cap formula applied by IPART in the 2004–09 regulatory control period. IPART's year *t+1* will become year *t*, year *t–1* will become year *t–2*, and so on. The following diagram illustrates the year references that will be applied with the AER's formulas:



Source: Adapted from a diagram in EnergyAustralia's submission, *Comments on the AER Preliminary Positions Paper Matters relevant to distribution determinations for ACT and NSW DNSPs for 2009–2014*, January 2008, p. 15

2.3.1 The control mechanism

The control mechanism that will apply to the prescribed distribution services provided by Country Energy, EnergyAustralia and Integral Energy for the 2009–14 regulatory control period includes:

- a weighted average price cap for the distribution component of network prices
- a pass through of the transmission components of network prices

- a schedule of fees and/or charges for specific miscellaneous services, monopoly services and emergency recoverable works, within the weighted average price cap. This schedule will be determined by escalating the current fees and/or charges by an escalation factor to be determined as part of the distribution determination. This schedule will be fixed for the regulatory control period.

The AER will apply the following weighted average price cap formula to the distribution component of network prices, as applied by IPART in the 2004–09 regulatory control period:[3]

$$\frac{\sum_{i-1}^{n}\sum_{k-1}^{m} p_{ik}{}^{t} \times q_{ik}{}^{t-2}}{\sum_{i-1}^{n}\sum_{k-1}^{m} p_{ik}{}^{t-1} \times q_{ik}{}^{t-2}} \leq 1 + \Delta CPI + X_{t} + D_{t} \qquad \text{i} = 1,...,\text{n and k} = 1,...,\text{m.}$$

Where: The DNSP has *n* relevant prescribed distribution service charges, which each have up to *m* components:

$p_{ik}{}^{t}$ is the proposed price for component *k* of the relevant prescribed distribution service charge *i* for year *t*

$p_{ik}{}^{t-1}$ is the proposed price for component *k* of the relevant prescribed distribution service charge *i* for year *t–1* (being the year which immediately precedes year *t*)

$q_{ik}{}^{t-2}$ is the audited[4] quantity of component *k* of the relevant prescribed distribution service charge *i* that was charged by the DNSP in year *t–2* (being the year immediately preceding year *t–1*)

X_{t} is the allowed real change in average prices from year *t–1* to year *t* of the regulatory control period as determined by the AER

D_{t} is the demand management cost recovery factor for year *t* calculated to recover certain approved demand management implementation costs and foregone revenue incurred in year *t–2*

ΔCPI means the number derived from the application of the following formula:

$$\Delta CPI = \left[\frac{CPI_{Mar,\,t-2} + CPI_{June,\,t-2} + CPI_{Sept,\,t-1} + CPI_{Dec,\,t-1}}{CPI_{Mar,\,t-3} + CPI_{June,\,t-3} + CPI_{Sept,\,t-2} + CPI_{Dec,\,t-2}} - 1\right]$$

3 This formula is based on IPART, *NSW Electricity Distribution Pricing 2004–05 to 2008–09*: *Final Determination*, June 2004, p.6. The AER notes that the formula has been updated to account for changes to the temporal indicators, as outlined on page 3 of this guideline.

4 Note: Please see the discussion on the AER's requirement for audited quantity data in section 5.4 of the AER's *Control mechanism for direct control services for the ACT and NSW 2009 distribution determinations*

Where:

CPI means the all groups index number for the weighted average of eight capital cities as published by the Australia Bureau of Statistics (ABS), or if the ABS does not or ceases to publish the index, then CPI will mean an index which the AER considers is the best estimate of the index

t refers to a nominal year

$CPI_{month(year)}$ means the CPI for the quarter and the year indicated.

The above weighted average price cap formula will apply to the distribution component of network prices, including DUOS tariffs, miscellaneous charges, monopoly fees and recoverable works.

The AER may allow adjustments to this formula to recognise any demand management incentives and/or service target performance incentives.

The AER will determine a schedule of fees and/or charges for specific miscellaneous services, monopoly services and emergency recoverable works. This schedule will be fixed for the regulatory control period. The AER will determine this schedule at the time of its determinations by escalating the current fees and/or charges by an escalation factor to be determined at the time of the determination.

Appendix A: Side constraints

The AER will apply the following side constraint, as required by Part I of the transitional Chapter 6 rules, to the distribution component of individual network tariffs in the 2009–14 regulatory control period, at the time of DNSPs' annual price reviews:

$$\frac{\sum_{k=1}^{m} d_k{}^{t} \times q_k{}^{t-2}}{\sum_{k=1}^{m} d_k{}^{t-1} \times q_k{}^{t-2}} \leq 1 + \Delta CPI + L_t \qquad \text{k} = 1,...,\text{m}.$$

Where: The distribution component of the network tariff (distribution tariff) has up to *m* components:

$d_k{}^{t}$ is the proposed price for aggregate component *k* of the distribution tariff for year *t*

$d_k{}^{t-1}$ is the price charged by the DNSP for aggregate component *k* of the network tariff in year *t–1* (being the year immediately preceding year *t*)

$q_k{}^{t-2}$ is the audited quantity of component *k* of the distribution tariff that was charged by the DNSP in year *t–2* (being the year immediately preceding year *t–1*)

L_t is the permissible real percentage change in an individual distribution tariff from year *t–1* to year *t* of the regulatory control period determined in accordance with clause 6.18.6 (c) of the transitional Chapter 6 rules

ΔCPI means the number derived from the application of the following formula:

$$\Delta CPI = \left[\frac{CPI_{\,March(t-2)} + CPI_{\,June(t-2)} + CPI_{\,September(t-1)} + CPI_{\,December(t-1)}}{CPI_{\,March(t-3)} + CPI_{\,June(t-3)} + CPI_{\,September(t-2)} + CPI_{\,December(t-2)}} - 1 \right]$$

Where:

CPI means the all groups index number for the weighted average of eight capital cities as published by the Australia Bureau of Statistics (ABS), or if the ABS does not or ceases to publish the index, then CPI will mean an index which the AER considers is the best estimate of the index

t refers to a nominal year

$CPI_{(month),(year)}$ means the CPI for the quarter and the year indicated.

The side constraints will limit the change in the expected average revenue for a tariff class, weighted by tariff component, from one regulatory year to the next. The AER requests that DNSPs provide audited quantity data for it to assess compliance with the side constraint formula. However, if a DNSP can demonstrate that use of unaudited quantity data is appropriate, the AER will consider the proposal not to require audited quantity data. As an example, the DNSP may provide an audit of relevant internal procedures or a statement that demonstrates internal quality assurance processes are sufficient in place of audited quantities. The AER does not expect DNSPs that currently provide audited quantity data to propose to cease this practice unless a view is taken by the relevant board that internal procedures are adequate.

Appendix B: Transmission cost recovery tariffs

The AER will allow each DNSP to recover its actual transmission related payments, net of transmission settlement residue payments, through transmission cost recovery tariffs. Transmission related payments include:

- transmission charges paid to TNSPs for use of transmission system
- avoided TUOS paid to embedded generators
- payments made to other DNSPs for use of their network.

Each DNSP bases its transmission cost recovery tariffs for each year on a forecast of the transmission related payments for that year. Where there is a difference between the forecast and actual transmission related payments, resulting in an over or under recovery of TUOS charges for year *t–2*, DNSPs will be able to recover or return this amount in year *t*.

In accordance with clause 6.18.7 of the transitional Chapter 6 rules, the AER will use the following formula to determine the amount DNSPs will recover for TUOS charges:

Amount to be passed onto customers in year *t* = Forecast TUOS *t* + overs and unders adjustment to be applied in year *t*

Where:

overs and unders adjustment to be applied in year *t* = amount actually paid by DNSPs for TUOS in year *t–2*, minus the amount passed onto customers by way of TUOS charges by the DNSP in year *t–2*

Arrangements for the ACT

ActewAGL is not currently subject to an overs and unders adjustment for TUOS. Unders and overs will be monitored from the commencement of the 2009–14 regulatory control period. Given the two year lag noted above, the first overs and unders adjustment for ActewAGL will occur in setting prices for year 3 of the 2009–14 regulatory control period. Existing TUOS arrangements in the ACT will be maintained until the commencement of the 2009–14 regulatory control period.