Preliminary Positions

Matters relevant to distribution determinations for ACT and NSW DNSPs for 2009-2014

Demand management incentive scheme

Control mechanisms for alternative control services

Approach to determining materiality for possible pass through events

December 2007

AUSTRALIAN ENERGY REGULATOR

Contents

Shortened forms

AER	Australian Energy Regulator
Capex	Capital expenditure
DNSP	Distribution Network Service Provider
ICRC	Independent Competition & Regulatory Commission (ACT)
IPART	Independent Prices and Regulatory Tribunal (NSW)
NEM	National Electricity Market
NER	National Electricity Rules
Opex	Operating expenditure
SCO	Ministerial Council on Energy Standing Committee of Officials

Summary

The first distribution determinations the AER will be required to make will be for the regulatory control period 2009-2014 in relation to the following Distribution Network Service Providers (DNSPs):

- ActewAGL
- Country Energy
- EnergyAustralia
- Integral Energy

(the ACT and NSW DNSPs).

Amendments to the National Electricity Rules (NER) including transitional rules for the ACT and NSW DNSP determinations will take effect from 1 January 2008. These rules set out the regulatory framework under which the AER will regulate distribution services.

This paper is based on the transitional Chapter 6 rules notified in the South Australian gazette on 20 December 2007. It sets out preliminary positions of the AER as to how the following matters will be applied in the AER's distribution determination for ACT and NSW DNSPs for the 2009-2014 regulatory control period:

- A demand management incentive scheme
- A control mechanism for alternative control services
- A guideline on the AER's likely approach to determining materiality in the context of possible pass through events.

The preliminary positions in this paper are based on the views of AER staff, and have not yet been considered by the AER Board.

Consultation processes

This paper takes account of the issues paper released on 22 November 2007 (issues paper), and represents the results of submissions and comments received by the AER from the ACT and NSW DNSP and other interested parties.

Processes for the ACT and NSW distribution determinations

The AER proposes to make final decisions on the matters discussed in this paper following consideration of any submissions, and does not propose to release further written guidance on its likely approaches prior to making a final decision. However, the AER is willing to engage with stakeholders until a final decision is made.

The AER will release its guidelines in respect of the matters in this paper by 1 March 2008.

Request for submissions on this preliminary position paper

Interested parties are invited to make written submissions to the AER on the preliminary positions in this paper by the close of business Tuesday 29 January 2008. Submissions can be sent electronically to AERInquiry@aer.gov.au. Alternatively, written submissions can be sent to:

Mr Mike Buckley
General Manager
Network Regulation North Branch
Australian Energy Regulator
GPO Box 3131
Canberra ACT 2601

The AER prefers that all submissions be in an electronic format and publicly available, to facilitate an informed, transparent and robust consultation process. Accordingly, submissions will be treated as public documents and posted on the AER's website, www.aer.gov.au except and unless prior arrangements are made with the AER to treat the submission, or portions of it, as confidential.

Any enquiries about the preliminary positions, or about lodging submissions, should be directed to the Network Regulation North Branch on (02) 6243 1233 or at the above email address.

1 Regulatory Framework for ACT and NSW determination

Following amendments to the NEL and NER in December 2007 the AER will be responsible for distribution determinations applying to the DNSPs that operate in the ACT and NSW, for the regulatory control period 2009-2014. These DNSPs are:

- ActewAGL
- Country Energy
- EnergyAustralia
- Integral Energy

(the ACT and NSW DNSPs).

The AER must make its distribution determinations in respect of the ACT and NSW DNSPs by 1 May 2009.

This paper sets out preliminary positions of the AER with respect to certain matters that are relevant to these distribution determinations. The preliminary positions in this paper are based on the views of staff, and have not yet been considered by the AER Board.

Unless otherwise indicated, references in this paper to a 'distribution determination' are to the distribution determination that the AER will make in relation to DNSPs operating in the ACT and NSW for the 2009-2014 regulatory control period.

1.1 Transitional rules for ACT and NSW DNSPs

Rather than the amended Chapter 6 being applied to the ACT and NSW distribution determinations, Chapter 11 of the NER provides that a modified version of the new Chapter 6 - a transitional Chapter 6 - will apply. In this paper a reference to the 'general Chapter 6' means the new Chapter 6 that will apply across the NEM and take effect 1 January 2008. A reference to the 'transitional Chapter 6' or 'transitional rules' is a reference to the rules that will apply to the ACT and NSW distribution determinations. The transitional Chapter 6 rules were notified in the South Australian gazette on 20 December 2007.

The AER understands that SCO's approach to developing arrangements for the ACT and NSW distribution determination has generally been to apply the national arrangements in the general Chapter 6 where feasible. SCO's explanatory material accompanying the release of the exposure draft of Chapter 6 in April 2007 indicates that the general Chapter 6 has been developed with the objective of consistency with transmission where appropriate:

> To achieve the MCE's objective of consistency where appropriate, the Exposure Draft of distribution revenue Rules largely builds on the AEMC's approach to economic regulation of electricity transmission. The Exposure Draft takes into account differences in the nature of transmission and

distribution networks, based on analysis of these differences undertaken during the development of the draft Rules.[1]

Where it is not feasible to apply the arrangements in the general Chapter 6, because of timing constraints, SCO's approach has been to adopt transitional arrangements, with the result that some provisions of transitional Chapter 6 will differ to those of the general Chapter 6. In recognition of the limited time available to consider alternative approaches to those in the general Chapter 6, the transitional Chapter 6 will largely preserve key elements of the current frameworks applied in the ACT and NSW.

In developing its preliminary positions, the AER has taken into account SCO's approach to the development of transitional arrangements. In accordance with the objective of consistency with transmission where appropriate, the AER has considered whether its approaches in transmission should be adopted for distribution. Unless there is sufficient time to consider and implement changes to existing arrangements, or there is a clear reason to change existing arrangements, the AER has generally proposed to maintain the approaches taken by the Independent Competition and Regulatory Commission (ICRC) and the Independent Prices and Regulatory Tribunal (IPART) in the current regulatory period.

1.2 Consultation for ACT and NSW resets

1.2.1 Consultation requirements of the NER

The transitional Chapter 6 rules will provide for various models, incentive schemes and guidelines to be prepared by the AER in advance of making the distribution determination that will apply to the ACT and NSW DNSPs, including the following:

- A demand management incentive scheme may be published; however it may not be applied in the distribution determination if it is not published by 1 March 2008 or the date that is one month after the commencement of amendments to the NER (whichever is the later);

- A statement as to the AER's likely approach to the control mechanism for alternative control services must be published by 1 March 2008; and

- A guideline outlining the AER's likely approach to determining materiality in the context of possible pass through events may be published.

The transitional Chapter 6 provides that in developing this incentive scheme, statement and guideline, the AER may carry out such consultation as it considers appropriate and may take into consideration any consultation carried out before the commencement date of the amendments to the NER. In view of the time available and the need to provide stakeholders with adequate opportunity to comment on matters relevant to the ACT and NSW distribution determinations, the AER considers it appropriate to commence consultation prior to commencement of the amendments to the NER.

---

[1] Standing Committee of Officials of the Ministerial Council on Energy, *Changes to the National Electricity Rules to establish an economic framework for the regulation of electricity distribution, Explanatory Material,* April 2007, available at www.mce.gov.au.

The transitional Chapter 6 provides that once finalised, the demand management incentive scheme and guideline on the approach to determining materiality may be amended. There is no scope in the transitional rules for the AER to amend the statement as to the likely approach to the control mechanism for alternative control services without providing detailed reasoning for the amendments.

The transitional arrangements provide for the continuation of some arrangements that are currently in place. These include ring fencing and capital contributions arrangements. Cost allocation methodologies must be submitted by the ACT and NSW DNSPs to the AER after the NER take effect, however the AER is not required to release cost allocation guidelines for the ACT and NSW DNSPs. Consequently, the AER will not consult on these issues at this time.

1.2.2 Engagement with ACT and NSW DNSPs

Consultation with the DNSPs regarding these issues has been ongoing since June 2007. On 4 December 2007 AER staff presented proposals for certain models and incentive schemes to be developed under the transitional Chapter 6. In addition to these consultation sessions, meetings between the ACT and NSW DNSPs and the AER have occurred in which issues associated with the upcoming distribution determination, including the development of guidelines under transitional Chapter 6, were discussed.

1.2.3 Proposed consultation process

The AER will make decisions with respect to the matters referred to in this paper after the NER take effect. The AER proposes to make final decisions on these matters following consideration of the submissions received on this paper, and does not propose to release further written guidance on its likely approach prior to making a final decision on 1 March 2008. However, the AER is willing to engage with stakeholders until a final decision is made.

1.2.4 Other consultation for ACT and NSW distribution determinations

In addition to the matters discussed in this paper, the AER is continuing to consult on other matters provided for under transitional Chapter 6 through a preliminary positions paper released on 22 November 2007.

1.3 Consultation under general Chapter 6 of the NER

The general Chapter 6 of the NER will provide for the AER to develop various guidelines that may be applied to DNSPs across the NEM.[2] The guidelines of broad application will not be applied in the ACT and NSW distribution determinations unless DNSPs agree to transfer to these arrangements in the course of the 2009-2014 regulatory period.

Given that the AER's guidelines under general Chapter 6 and transitional Chapter 6 will be informed by separate consultation processes, the guidelines under the two chapters may vary. The guidelines that the AER develops for the ACT and NSW distribution determination may, in some circumstances, provide guidance as to the

[2] In this section, the term 'guidelines' is used to include guidelines, incentive schemes and models.

AER's likely approach to guidelines under general Chapter 6. However, they will not be determinative of the AER's positions under general Chapter 6.

Although the guidelines developed under general Chapter 6 and transitional Chapter 6 may vary, there is scope to align the two sets of guidelines following the conclusion of the general Chapter 6 guidelines process.[3] Should differences arise in the guidelines under general Chapter 6 and transitional Chapter 6, it is possible to amend the transitional Chapter 6 guidelines following the conclusion of the general Chapter 6 guidelines process.

In summary, the AER will engage in separate consultation processes for the guidelines under general Chapter 6 and transitional Chapter 6. This paper is relevant to the guidelines that will be published under transitional Chapter 6 of the NER, and the AER's decisions on these matters will not determine the AER's position on guidelines under general Chapter 6.

[3] The transitional post tax revenue model, roll forward model, efficiency benefit sharing scheme and service target performance incentive scheme may be amended with the agreement of the ACT and NSW DNSPs. Amendments to other guidelines discussed in this paper may be made subject to consultation as the AER considers appropriate.

2 Demand management incentive scheme

2.1 Requirements of the NER

The transitional rules confer discretion on the AER to develop and publish an incentive scheme or schemes to provide incentives for DNSPs to implement efficient non-network alternatives or to manage the expected demand for standard control services in some other way. Such a scheme is referred to in this paper as a 'demand management incentive scheme'. The relevant clause in the transitional rules is

> 6.6.3 Demand management incentive scheme
>
> (a) The AER may develop and publish an incentive scheme or schemes (demand management incentive scheme) to provide incentives for Distribution Network Service Providers to implement efficient non-network alternatives or to manage the expected demand for standard control services in some other way.

If the AER publishes a demand management incentive scheme it must set out the way in which the scheme will operate for the next distribution determination. The scheme must be published by 1 March 2008 otherwise it cannot be applied to DNSPs for the next regulatory period.

In developing and implementing a demand management incentive scheme, the AER must have regard to the following factors that are set out in section 6.6.3 (b) of the transitional rules:

> (1) 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 Distribution Network Service Providers; and
>
> (2) the effect of a particular control mechanism (i.e. price – as distinct from revenue – regulation) on a Distribution Network Service Provider's incentives to adopt or implement efficient non-network alternatives; and
>
> (3) the extent the Distribution Network Service Provider is able to offer efficient pricing structures; and
>
> (4) the possible interaction between a demand management incentive scheme and other incentive schemes; and
>
> (5) the willingness of the customer or end user to pay for increases in costs resulting from implementation of the scheme.

In considering the role of a demand management incentive scheme, the transitional rules require the AER to have regard to the extent to which the DNSP has considered and made provision for efficient non-network alternatives in its consideration of the forecast of required capital expenditure (capex) that is included in a building block proposal.

2.2 Purpose of a demand management incentive scheme

Demand management can be a least cost alternative to network augmentation in response to forecast demand growth. It is a demand-side response which aims to lower energy demand, rather than increase the capacity of the network. It aims to do

this by providing incentives for DNSPs to pursue solutions that reduce electricity demand through customer incentives and efficiency gains. It also provides incentives for DNSPs to find alternative supply, such as embedded generation, to lower the stress placed on the network during peak times, and defer the need for network augmentation.

There are several factors in the market and regulatory framework which may prevent demand management from being taken up, including barriers to information and practice present within pricing, and within the form of regulation and market structure, as well as service and reliability standards barriers.

The purpose of applying a demand management incentive scheme is to address the barriers to demand management in the market and regulatory framework in order to encourage DNSPs to undertake an efficient level of demand management in response to rising demand on their networks.

2.3 Current position in ACT and NSW

2.3.1 NSW

IPART determination

In June 2004, IPART introduced the D-factor, a demand management incentive scheme, into the *NSW Electricity Distribution Pricing 2004–05 to 2008–09: Final Determination* (IPART's pricing determination).

The D-factor applies to EnergyAustralia, Integral Energy and Country Energy in the current regulatory control period.

In applying the D-factor IPART aimed to reduce what it saw as regulatory barriers to demand management in NSW. In particular, it sought to overcome the barriers created under the weighted average price cap (WAPC) form of regulation applying in NSW. This form of regulation may provide DNSPs with incentives to achieve demand forecasts in order to reach a required revenue allowance, indirectly providing DNSPs with disincentives to undertake demand management.

While the WAPC may not provide an incentive for demand management, the ex-ante framework for establishing a DNSP's capex allowance does give the DNSP the incentive to apply demand management when actual demand growth is likely to result in the need for unplanned augmentation. This demand management enables DNSPs to avoid incurring additional capex costs. The AER notes that the pricing disincentive to conduct demand management may be stronger than the incentive to conduct demand management created by the ex ante framework,

The D-factor arose out of IPART's inquiry into demand management in 2002, which found that demand management can be more cost-effective in relieving network constraints than network augmentation and it can improve capital efficiency and benefit end-users through lower costs.[4]

[4] IPART, Inquiry *into the Role of Demand Management and Other Options in the Provision of Energy Services* – Issues *Paper*, July 2001.

IPART saw the D-factor as a short-term incentive for businesses to overcome barriers to the greater use of demand management solutions in supplying network services. These barriers were the introduction of the WAPC and limitations of the emergent market of demand management solutions.[5] IPART also had concerns regarding rising peak loads and network asset underutilisation in NSW. IPART expected that demand management, and its related costs, would become part of the standard business practices of DNSPs so that, in the medium to long term, a special D-factor incentive would not be necessary.

Other regulatory instruments in NSW

The *NSW Electricity Supply Act 1995* requires DNSPs to investigate and report on demand management strategies when it reasonably expects 'that it would be cost-effective to avoid or postpone the expansion [of a distribution system] by implementing such strategies.'[6]

The NSW Demand Management Code of Practice (The DM Code) provides guidance to DNSPs in meeting the requirements of the Electricity Supply Act. The DM Code is part of the wider regulatory framework of DNSPs in NSW, working alongside any schemes put in place by IPART and, in future, by the AER under the new national governance arrangements. IPART saw the DM Code as being insufficient on its own to overcome the barriers to demand management present under the WAPC.

The D-factor mechanism

The D-factor allows NSW DNSPs to recover the costs of implementing approved tariff and non-tariff based demand management measures through an allowance above determined WAPC revenues. It also allows DNSPs to recover any foregone revenue from approved non-tariff demand management measures. That is, the D-factor allows slightly higher prices to encourage NSW DNSPs to provide more efficient ways to meet peak electricity demand from consumers.

Figure 1 sets out the D-factor formula as applied by IPART.

The D-factor is a component of the WAPC formula, representing the allowed percentage increase in prices necessary for the DNSP to recoup losses incurred through DM policies, such as implementation costs and foregone revenue from the falls in demand for electricity.[7] It allows a proportionate real increase in Distribution Use of Service (DUOS) prices over and above that allowed by the X-Factor within the WAPC formula.[8]

A DNSP can achieve a positive or negative D-factor in any year. A DNSP will achieve a positive D-factor if the demand management costs (proportionate to the adjusted smoothed revenue requirement) in year *t-1* is greater than in the previous year, *t-2*. A positive D-factor increases the WAPC, and therefore the allowed average price increase of network tariffs applied by a DNSP.

---

5 IPART, *NSW Electricity Distribution Pricing 2004-05 to 2008-09 - Final Report*, June 2004, p 89.

6 Electricity Supply Act 1995 (NSW). Schedule 2, subsection 6(5).

7 IPART op. cit. *Treatment of Demand Management - 2004/05 to 2008/09 - Draft Decision* p.22

8 IPART op. cit. *NSW Electricity Distribution Pricing 2004-05 to 2008-09 Final Report* p. 99

Figure 1 The D-factor Formula

$$D_{t+1} = \frac{DM\ Cost\ Pass\ Through\ Amount_{t-1}}{SRR_t - AF\ \text{Re}venue_{t-1}} - \frac{DM\ Cost\ Pass\ Through\ Amount_t}{SRR_{t-1} - AR\ \text{Re}venue_{t-2}}$$

Where:

t is the current year

D_{t+1} is the D-factor to be included in the price control formula for Year *t+1*

$AF\ \text{Re}venue_{t-1}$ is the amount approved by the Tribunal for recovery by the DNSP of foregone revenue in Year *t-1*

$AR\ \text{Re}venue_{t-2}$ is the amount approved by the Tribunal for recovery by the DNSP of foregone revenue in Year *t-2*

$DM\ Cost\ Pass\ Through\ Amount_{t-1}$ is the DM Cost Pass Through Amount calculated for the DNSP for the Year *t+1* – the sum of the demand management implementation costs and foregone revenue incurred in Year *t-1*, as approved by the Tribunal

$DM\ Cost\ Pass\ Through\ Amount_t$ is the DM Cost Pass Through Amount calculated for the DNSP for the Year *t*

SRR_t is the smoothed revenue requirement for the DNSP for the Year *t*

SRR_{t-1} is the smoothed revenue requirement for the Year *t-1*

Source: IPART *NSW Electricity Distribution Pricing 2004-05 to 2008-09 Final Report* p. 99

A DNSP will achieve a negative, or zero, D-factor when the DNSP decreases, or only maintains, the level of its demand management costs, that is, when demand management costs in year *t-1* are less than, or equal, the previous year, *t-2*. A negative D-factor removes the effect on prices of a D-factor increase in year *t-2* which would otherwise have a cumulative impact on price persisting throughout the regulatory period. This would result in an over-recovery demand management costs in year *t-1* and the remainder of the regulatory period.[9]

There is a two year lag between the outlay of DM costs and recovery through higher prices.[10] This is necessary as prices must be determined by IPART one year before they are implemented and foregone revenue can be calculated only after the impact of the policy is analysed for its actual effect on revenue.[11]

9 Ibid. p. 100

10 Ibid. p. 100

11 IPART *Guideline: Methodology for estimating foregone revenue* p8. DNSPs are only able to recover actual foregone revenue.

Results of the D-factor

IPART has recently released an information paper on the D-factor, *NSW Electricity Information Paper No 2/2007 - Demand Management in the 2004 distribution review: progress to date.*[12] The information paper outlines the D-factor mechanism and its results to date in NSW.

The paper shows that the D-factor has had a small impact on network decisions and prices since its implementation.[13] Between 2004–05 and 2005–06 the NSW DNSPs spent around $8.26 million on demand management programs as a result of the D-factor scheme.

However, the total avoided capital and operational costs through approved demand management activities between 2004–05 and 2005–06 was approximately $24 million, and the deferral times varied for DNSPs depending on the type of capex project to be implemented.

The AER considers that the modest D-factor results to date show that the incentive scheme has not been a financial burden on consumers.

2.3.2 ACT

The ICRC does not currently apply a specific financial incentive to encourage ActewAGL to pursue demand management activities in the ACT.

In its 2003 draft determination, the ICRC noted that price is the main tool for ActewAGL to manage demand and promote efficient network utilisation. The ICRC acknowledged ActewAGL's existing demand management initiatives, including detailing greenhouse gas effects on customers' bills and the Greenpower initiative. It stated that its regulatory determination would maintain ActewAGL's incentives to continue its demand and load management programs.

In its final decision, the ICRC noted a submission suggesting that a demand management fund should be introduced in the ACT. It concluded, however, that linking a demand management fund to the distribution charge may not be appropriate, given that the ACT has a relatively small industrial base and relatively large residential base. The ICRC further noted that ActewAGL's existing Greenpower initiative was, to a limited extent, based on the demand management fund principle.

While not providing a formal demand management incentive, the ICRC's final decision did encourage ActewAGL to further develop its demand management policies and tariff arrangements for embedded generators, and to develop demand management and demand reduction education programs across its water, electricity and gas businesses.[14]

---

12 Available at www.ipart.nsw.gov.au.

13 IPART, *NSW Electricity Information Paper No 2/2007 - Demand Management in the 2004 distribution review: progress to date*, 2007, p. 5.

14 ICRC, Final decision: Investigation into prices for electricity distribution services in the ACT. March 2004. p.110

2.4 Submissions

The AER received 12 submissions on the application of a demand management incentive scheme in the ACT and NSW. These were from ActewAGL, Country Energy, EnergyAustralia, Integral Energy, ETSA Utilities, GridX Power Pty Limited (GridX), Shellharbour City Council, the Total Environment Centre, the Clean Energy Council, the Insulation Council of Australia and New Zealand (ICANZ), the Ethnic Communities Council of NSW Inc, and the Energy Markets Reform Forum (EMRF) which is affiliated with Major Energy Users.

2.4.1 Demand management

Many of the submissions referred generally to the benefits of demand management and demand management incentive schemes.

ETSA Utilities commented that if demand management is to be a viable option, the regulatory arrangements for supply reliability at times of system peak need to be considered.

Shellharbour City Council submitted that current demand management policies are not achieving overall efficiency improvements, and gave an indication that currently DNSPs' public lighting charges lead to disincentives for the uptake of energy efficient lighting.

The Total Environment Centre submitted that a revenue cap form of regulation should be applied to DNSPs, and that where a price cap is in place, generous incentives should be developed to encourage cost-effective network demand management.

The Clean Energy Council submitted that the AER should continue to provide incentives for distributors to undertake cost effective demand management, particularly in the context of continuing regulatory and market failure.

ICANZ submitted that it strongly supports demand management policy initiatives at all levels of the electricity supply chain.

The EMRF commented that that pricing is the primary tool for getting demand side responses.

2.4.2 The D-factor

Submissions revealed a generally high level of support for the continuation of the D-factor in NSW, with some submissions indicating that it should be extended to other jurisdictions. In the ACT, however, submissions were varied as to the appropriateness of applying a D-factor over the average revenue cap.

ActewAGL submitted that a D-factor scheme, as currently in place in NSW, is not appropriate for the ACT given its form of regulation.

Country Energy submitted that it supports the continuation of the D-factor in NSW, however stated that it should be broadened to create further incentives for demand management.

EnergyAustralia submitted that while it supports the continuation of the D-factor in NSW, and its expansion for use under a National framework, some demand management opportunities, while well understood and able to reduce peak demands cannot be recovered under the D-factor.

Integral Energy's submission also supported the continuation of the D-factor in NSW, however commented on its limitations with respect to providing incentives for more globally targeted demand management.

ETSA Utilities commented that the D-factor mechanism is not an incentive, but that it simply removes the negative revenue impact that would otherwise apply to a legitimate demand management program. It also commented that it is difficult for NSW DNSPs to capture the flow-on commercial benefits for transmission and generation under the D-factor scheme.

GridX supported the maintenance of the D-factor in NSW, however recommended a review of the mechanism to ensure that DNSPs receive a full recovery of undertaking demand management schemes and of any lost revenue.

The Total Environment Centre submitted that it is imperative that the D-factor scheme in NSW is not abandoned precipitately as it has been responsible for greater efficiency within the NEM. It also commented that the application of the D-factor mechanism should be given closer consideration for the ACT.

The Clean Energy Council recommended that the D-factor be continued in NSW, and that a minimum annual D-factor of around one to two percent of DNSP's annual revenues should be automatically incorporated into the initial price determination. It also recommended that a D-factor be applied in the ACT which excludes the recovery of foregone revenue.

The Ethnic Communities Council of NSW Inc submitted that it supports the continuation of the D-factor in NSW in its present form.

The EMRF submitted that it does not support the continuation of the D-factor in NSW, as it views the scheme as relatively unsuccessful in providing incentives for demand management. It commented that there are much greater impediments to gaining the full benefits of demand management than could ever be addressed by the D-factor scheme. The EMRF noted that the Essential Services Commission of South Australia (ESCoSA) introduced its very targeted scheme after reviewing the detail and performance of the D-factor scheme. The EMRF submitted that a targeted scheme (like that used by ESCoSA) can be much more clearly benchmarked than a more indirect scheme such as the D-factor.

2.4.3 Learning-by-doing fund

Submissions revealed to the AER that there is a wide level of stakeholder support for the implementation of a learning-by-doing fund in both NSW and the ACT.

ActewAGL supported the AER's proposal to further consider the appropriateness of introducing a learning-by-doing fund in the ACT. ActewAGL suggested that a learning-by-doing type scheme would need to incorporate a clear set of procedures

and timelines for applications, assessment and approval, ensuring that there can be certainty about funding before a demand management project begins.

Country Energy indicated that the current D-factor scheme is limited in its effectiveness for Country Energy's network, and believes that in the short term, the demand management incentive scheme could be expanded by the introduction of a learning-by-doing fund. It submitted that a learning-by-doing fund would allow further development in enabling technologies, and include programs that encompass broad initiatives, rather than being solely concentrated on specific network constraints.

EnergyAustralia suggested an approach to broadening the D-factor to include costs and related foregone revenue for development, innovation and broad-based demand management projects. It suggested that a capped allowance be established specifically for these broader demand management costs in the order of 0.5-1 per cent of revenues, and that this cap could operate within the current D-factor mechanism.

Integral Energy submitted that the D-factor scheme should be broadened to include, or be complemented by, a learning-by-doing fund that provides incentives for:

- reducing total energy consumption (aside from peak energy consumption);
- implementing demand reducing initiatives that may not be allocated to a specific identifiable capex deferment, but would have the effect of slowing the overall (global) growth rate of electricity consumption and deferring future constraints from occurring; and
- developing schemes to facilitate wider tariff-based initiatives such as customer willingness to pay studies.

ETSA Utilities proposed that the AER's minimum position for demand management should include a demand management trial fund to enable possible technologies and solutions to be developed.

GridX recommended a learning-by-doing fund be applied in both NSW and the ACT to encourage demand management to be taken up by the DNSPs, and to compensate network companies for approving pilot demand management programs.

The Total Environment Centre suggested that the learning-by-doing fund that was applied by ESCOSA should be adopted for NSW and the ACT, as a supportive mechanism to the D-factor scheme.

The Clean Energy Council submitted that the D-factor should be complemented by a learn-by-doing category for demand management research and development and other demand management measures where the outcomes are difficult to quantify in advance. It also submitted that a long term demand management category for low cost demand management that may not deliver short term network investment deferral but contributes to reducing the demand for new capacity in the long term should be implemented.

The Ethnic Communities Council of NSW Inc suggested that the AER apply a learning-by-doing fund in the ACT and NSW, of around $50 million in total per annum. It suggested that the fund target residential customers, in particular from low-

income households, to help them overcome the lack of information and the high capital costs associated with renewable energy initiatives.

The EMRF highlighted that it is prepared to work with the AER to develop a demand management scheme along the lines of the scheme applied by ESCOSA, where funds are provided under supervision to finance the staff costs for examining and trialling potential solutions for demand management.

2.5 Consideration of issues

The AER notes that the application of the D-factor or a learning-by-doing fund across the NEM would require significant stakeholder consultation. The considerations in this Chapter are reflective only of demand management incentive schemes for application in the ACT and NSW.

2.5.1 D-factor

NSW

The AER has found a reasonably high level of stakeholder support for the continuation of the D-factor, however it is aware of its modest results achieved to date. While noting the D-factor's limitations, the AER considers there are positive reasons for the continuation of the scheme in NSW as a demand management incentive mechanism. These include:

- Support for efficient investment – demand management can provide an alternative to network augmentation to address increasing peak loads. In accordance with the transitional rules, the AER will apply a weighted average price cap form of control for standard control services. Some stakeholders consider a price cap to be a disincentive to undertake demand management. The AER sees a benefit in addressing these regulatory barriers to demand management incentives.

- Capacity building and future opportunities — in spite of its short period of implementation, and the modest amounts of demand management implemented by NSW DNSPs, the results of the D-factor to date have demonstrated the ability of the DNSPs to build capacity and experience in their planning processes and the emergent demand management market. The AER considers that there are further opportunities for efficiency gains through planning processes and informed project assessments resulting from the D-factor.

- Shift away from the 'engineering solution'- AER staff research and stakeholder consultation has revealed a common view that DNSPs tend to favour capital expansion over demand management responses to rising peak demand. The AER considers that the maintenance of the status quo in NSW, being to continue the application of the D-factor scheme on a trial basis, will address this tendency and increase DNSP incentives to consider demand management solutions.

- Information and data collection effects — given the short period in which the NSW DNSPs had to implement demand management under the D-factor incentive scheme, the AER is of the view that its continuation on a trial basis would provide additional data on the impact of the incentive. Further, it is likely

to provide a data set to help forecast potential capex efficiencies from demand management programs.

- Limitations on price signals — the AER's consultation and receipt of submissions from stakeholders indicate that there are limitations for the distributors to send signals to the market about constraints on the network through price. An alternative mechanism to effectively reduce constraints on the network may be of assistance. The D-factor supports alternative demand management mechanisms that are not reliant on sending pricing signals to customers.

- Customer willingness to pay — preliminary indications from stakeholders is that the scheme has resulted in modest net benefits.

The AER has also had regard to several factors that will be outlined in transitional Chapter 6 of the NEL:

- *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 AER considers that the D-factor has had limited impact on customer prices to date. The AER is satisfied that the requirement within the D-factor that the maximum amount recoverable by DNSPs for a demand management program is equal to the avoided distribution costs of the program, sufficiently limits the costs and benefits of the scheme to consumers and DNSPs. The AER considers that the D-factor does not unfairly penalise DNSPs in allowing ex-post cost recovery, as the proposed D-factor guidelines clearly set the criteria for the AER's assessment of demand management programs.

- *The effect of a particular control mechanism (i.e. price – as distinct from revenue – regulation) on a DNSP's incentives to adopt or implement efficient non-network alternatives.*

  In NSW, the AER considers that the application of the D-factor offsets some of the perceived disincentives for demand management perceived within the WAPC. While the AER notes that the modest D-factor results could indicate that the scheme is taking some time to develop the intended incentives, the AER considers that continuing the D-factor on a trial basis during the next regulatory period may allow the scheme more time to develop.

- *The extent the DNSP is able to offer efficient pricing structures.*

  To date there has been modest demand management undertaken in NSW, and there is therefore little information available to the AER and stakeholders regarding efficient costs for demand management. While the AER considers that a national roll-out of interval meters may be considered for determination by COAG by or during the 2009-2014 regulatory period, it considers that there are currently limitations for the distributors to send signals to the market about constraints on the network through price. The AER considers that the application of a D-factor may be necessary, in particular to allow DNSPs to

trial tariff based demand management programs which will provide information on efficient pricing.

- *The possible interaction between a demand management incentive scheme and other incentive schemes.*

  The AER acknowledges that the D-factor incentive mechanism may interact with the incentives created by other schemes. However, the AER considers that the benefits of continuing the D-factor on a trial basis, in order to further observe the mechanism and create incentives for demand management, may outweigh any costs.

- *The willingness of the customer or end user to pay for increases in costs resulting from implementation of the scheme.*

  The AER considers that to date, the D-factor has resulted in very small increases in customer prices, and considers that the limit on demand management cost recovery under the D-factor to being equal to the avoided distribution costs of the demand management, appropriately limits future customer price rises. The AER considers that continuing the D-factor may allow DNSPs to trial projects that will provide information on customer willingness to pay for demand management, which is currently limited.

ACT

The AER notes stakeholder submissions relating to the introduction of a D-factor in the ACT, and in particular ActewAGL's agreement that a D-factor may not be the appropriate model to apply in the ACT. This is largely due to the different form of regulation that applies in the ACT, being an average revenue cap.

Due to the differences in the form of regulation and DNSP networks in NSW and the ACT, the AER considers that any benefits of establishing a D-factor scheme in the ACT are unlikely to match the administrative costs of doing so. In the absence of time necessary to conduct a preliminary analysis and extensive consultation to determine the most appropriate form for an ACT D-factor, the AER considers it may not be appropriate to apply a D-factor to the ACT.

2.5.2 Learning-by-doing fund

In the initial phase of consultation and submission on its issues paper, the AER considered the option of implementing a learning-by-doing fund alongside the D-factor incentive in NSW, and within the revenue cap arrangement in the ACT. The AER's issues paper highlighted that such a scheme could potentially provide DNSPs with incentives for more broad based demand management programs to improve efficient electricity use across the market, and called for submissions from stakeholders on the costs and benefits of a learning-by-doing fund.

In forming its preliminary position on the application of a learning-by-doing fund, the AER has had regard to its role as the economic regulator in ensuring an efficient level of demand management is undertaken by DNSPs, as well as the role of policy directions from the MCE that provide incentives and mechanisms for DNSPs to undertake tariff and non-tariff demand management. The AER has also considered the

potential for Australian Government policy changes, stemming from global emissions agreements and new climate change focussed policy initiatives which may affect the operation of various sectors of the energy market, including electricity distribution.

Actual and potential demand management obligations

The AER has considered areas of actual and potential demand management obligations for DNSPs in the 2009-2014 regulatory period that lie outside the AER's potential application of a learning-by-doing fund, outlined below:

- Clause 6.5.7(e)10 of the transitional rules states that:

  > 6.5.7 (c) The AER must accept the forecast of required capital expenditure of a Distribution Network Service Provider that is included in a building block proposal if the AER is satisfied that the total of the forecast capital expenditure for the regulatory control period reasonably reflects:
  >
  > (e) In deciding whether or not the AER is satisfied as referred to in paragraph (c), the AER must have regard to the following ('the capital expenditure factors'):
  >
  > (10) the extent the Distribution Network Service Provider has considered, and made provision for, efficient non-network alternatives.

  This clause requires DNSPs to demonstrate to the AER that in making capital expenditure forecasts they have had specific regard to demand management alternatives to capital expansion for each planned capital expansion project. The AER considers that this clause requires DNSPs to consider implementing demand side responses to network constraints caused by rising demand for electricity, and to select a demand side response where it is the most efficient strategy to deal with a network constraint. Should a DNSP either not demonstrate its consideration of implementing a demand management response where it has planned capex, or be unable to demonstrate that a capital expansion project in response to a network constraint is a more efficient response than a demand management project, the AER may decide that it is not satisfied with the DNSP's forecast capital expenditure. The transitional rules state that if the AER is not satisfied with the DNSP's forecast capital expenditure, the AER must not accept the DNSP's forecast capital expenditure.

  The AER considers that Clause 6.5.7(e) of the transitional rules requires DNSPs to consider demand management responses to network constraints, and allows the costs of considering and implementing efficient demand management to be recovered in DNSPs' operating expenditure.

- The MCE has indicated that COAG is currently undertaking a cost-benefit analysis of a national mandated roll-out of electricity smart meters to areas where the benefits of doing so outweigh the costs. The AER understands that a national roll-out of interval meters will be considered for determination by COAG by or during the 2009-2014 regulatory period, or at the very least, that a range of pilots and technical trials of smart meters will be determined at the MCE level.

Should it be the case that a mandate for a smart meter roll-out occurs, DNSPs will be able to recover the costs of the smart meter roll-out or pilots and technical trials as operating expenditure at the time of the AER's determination.

The AER considers that a mandated roll-out or trials of smart meters will allow DNSPs to conduct tariff demand management where it is the most efficient response to network constraints, and allow DNSPs to recover the implementation costs of this demand management as either operating expenditure or as a pass through event.

- The MCE has publicly welcomed progress towards a new global emissions agreement at the recent United Nations Climate Change Conference in Bali. The AER considers that the MCE's focus on energy market reform emphasising energy efficiency and security is likely to be influenced by a broader government climate change agenda. The AER considers that any broader policy change will be likely to affect the operation of DNSPs, and notes that any mandated changes to the operating expenditure of the DNSPs will be recoverable at the time of the AER's determination or as a pass through event.

The AER has considered the above actual and potential DNSP demand management obligations in light of the possible application of a learning-by-doing fund to the AER's ACT and NSW 2009-2014 distribution pricing determination, and considers that these actual and potential policies will be likely to provide new opportunities for DNSPs to conduct demand management in the next regulatory period.

The AER's role as an economic regulator does not require it to implement a broader demand management incentive scheme where it is inefficient to do so. The AER considers that it is the role of broader policy change, including from COAG and the MCE, to direct DNSPs in respect of demand management policy initiatives.

Noting this, the AER does however consider that there is some uncertainty surrounding the potential policy changes outlined above, and considers that the full effects of these potential demand management policies may not be felt in the 2009-2014 regulatory period. The AER also considers that the current level of demand management being undertaken by NSW DNSPs to be low, and that certain demand management programs which may not be directly attributable to avoided distribution costs, may still be efficient in the long-term management of demand related network constraints.

The AER considers that there may be long-term efficiency gains from demand management programs that are currently not being captured by the D-factor or within the average revenue cap in the ACT, and sees benefits in encouraging DNSPs to undertake and explore new demand management programs. It considers that it may be appropriate for the AER to provide an extra incentive for DNSPs to conduct non-constraint based, broader demand management programs.

The AER has considered various stakeholders' comments on the potential for a learning-by-doing fund in submissions received on its issues paper, and considers that trialling a small allowance to further encourage DNSPs to undertake demand management, such as a learning-by-doing fund, may be in the long term interests of energy users.

In considering the application of a learning-by-doing fund, the AER has had regard to several factors that are outlined in transitional Chapter 6 of the NEL. Specifically, the AER has considered that:

- *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 AER considers that the trial of a modest learning-by-doing fund will encourage DNSPs to undertake demand management programs, without significantly increasing electricity costs to consumers. The AER considers that applying a learning-by-doing fund at the next ACT and NSW electricity distribution determinations will encourage the implementation of demand management programs which provide long term efficiency gains to energy users that may outweigh any short term price increases.

- *The effect of a particular control mechanism (i.e. price – as distinct from revenue – regulation) on a DNSPs incentives to adopt or implement efficient non-network alternatives.*

  While the AER considers that the average revenue cap may provide some incentives for DNSPs to conduct demand management, the minimal amount of demand management currently being carried out in the ACT suggests a need for further demand management incentives.

  In NSW, the AER considers that the application of the D-factor offsets some of the disincentives for demand management perceived within the WAPC, however notes that results to date of the D-factor are modest. The AER notes that the D-factor scheme may be taking some time to develop the intended incentives, and proposes to continue the scheme on a trial basis during the next regulatory period. It considers that a learning-by-doing fund may further offset the disincentives for demand management perceived within the WAPC.

- *The extent the DNSP is able to offer efficient pricing structures.*

  There is currently little information available to the AER and stakeholders regarding efficient costs and customer price variations for demand management. The AER considers that applying a learning-by-doing fund will allow DNSPs to trial tariff-based demand management programs which will provide information on efficient pricing.

- *The possible interaction between a demand management incentive scheme and other incentive schemes.*

  The AER considers that the application of a modest and administratively simple learning-by-doing fund trial will be unlikely to negatively interact with the incentives created by other incentive mechanisms.

- *The willingness of the customer or end user to pay for increases in costs resulting from implementation of the scheme.*

  The AER considers this an important factor in considering the application of a demand management scheme, in particular a learning-by-doing fund for the

ACT and NSW 2009-2014 regulatory period. There is currently insufficient information on customer willingness to pay for demand management, and the AER considers a modest learning-by-doing fund will enable DNSPs to conduct demand management trials of a more experimental nature which will provide greater information on customer willingness to pay, without resulting in significant customer price increases.

2.6 Preliminary position

2.6.1 D-factor

NSW

While noting the modest results achieved by the D-factor to date, the AER considers that it provides a practical starting point for DNSPs to enhance their capacity for undertake demand management. Accordingly, the AER proposes to continue the D-factor in NSW in the 2009-2014 regulatory period.

The AER is aware of the apparent limitations of the D-factor in providing incentives to conduct non-constraint based demand management. However, the AER considers there is currently insufficient information to replace the D-factor scheme. The AER however proposes that the D-factor scheme will be reassessed at the time of the 2014-2019 NSW electricity distribution determination. The on-going need for demand management incentive schemes will be addressed in the AER's generic distribution consultation.

IPART released its *Guidelines on the Application of the D-factor in the Tribunal's 2004 NSW Electricity Distribution Pricing Determination* (IPART's D-factor guidelines) in April 2005. These guidelines were developed as part of an extensive stakeholder consultation process, and incorporate the views of DNSPs at that time. The AER considers IPART's D-factor guidelines, as applied by IPART in the 2004-2009 regulatory period, provide an appropriate basis for the AER's D-factor guidelines for the 2009-2014 regulatory period. A copy of IPART's D-factor Guidelines, proposed for AER adoption, are provided at Appendix A.

ACT

Based on its initial consultations and analysis to date, the AER does not consider that it would be appropriate to implement a D-factor incentive scheme in the ACT for the next regulatory period, and proposes not to apply a D-factor in the ACT for the 2009-2014 regulatory period.

2.6.2 Learning-by-doing fund

The AER's preliminary position is to apply a learning-by-doing fund, on a trial basis, to the ACT and NSW 2009-2014 distribution determinations. The aim of this trial is to encourage DNSPs to undertake broad based demand management which may provide long term benefits to consumers. The results of the trial will be considered by the AER throughout the regulatory period, and an assessment of the trial will be made when considering the AER's application of demand management incentive schemes for the 2014-2019 regulatory period.

The AER's preliminary outline of its trial learning-by-doing fund is that the fund will allow DNSP's recovery of:

- $1 million in total for EnergyAustralia
- $600 000 in total for Country Energy
- $600 000 in total for Integral Energy
- $100 000 in total for ActewAGL

over the 2009-2014 regulatory period in the ACT and NSW.

The dollar amounts that the AER is proposing for the ACT and NSW DNSPs to recover under the learning-by-doing fund are broadly proportionate to the relative sizes of the DNSPs' annual revenues. The amounts are reflective of the AER's position that it is appropriate to allow a modest learning-by-doing fund due to the existing and potential DNSP demand management obligations within the next regulatory period.

The AER notes that it will be necessary for the application of the learning-by-doing fund to be administratively simple in order for DNSPs to implement the maximum amount of demand management under the fund. The AER proposes that cost recovery under the learning-by-doing fund will be on an annual, ex-post basis for the implementation and foregone revenue costs of approved demand management programs. The AER proposes that demand management undertaken as part of the learning-by-doing fund will not be subject to auditing requirements, in order to ensure the administrative costs of conducting demand management under the fund do not unreasonably erode the available cost recovery.

The AER proposes that in the case of non-tariff demand management, implementation and foregone revenue costs will be recoverable, however in the case of tariff demand management programs, only implementation costs will be able to be recovered. This is in line with cost recovery under the current D-factor arrangements in NSW.

In NSW, the existing D-factor arrangement will remain in operation, and the AER proposes its guidelines for the operation of the NSW D-factor will remain largely similar to those published by IPART for the 2004-2009 regulatory period. The AER's proposed learning-by-doing fund will be applied over the top of the proposed D-factor in NSW, and over the average revenue cap in the ACT.

Applications for the AER's learning-by-doing fund will be assessed annually at the time of the DNSP pricing review, and costs for approved demand management programs will be recovered in the year following their implementation via an adjustment in the WAPC in NSW, and via pass through within the ACT's average revenue cap. To be eligible for recovery under the fund, the AER will require that DNSPs report on the demand management programs implemented, including:

- Aims of the demand management programs
- Outline of their implementation
- Implementation costs
- Foregone revenue (in the case of non-tariff demand management programs)

- Outcomes of the programs.

Projects eligible for recovery will fall within the following proposed criteria which the AER will consider when reviewing DNSPs' applications under the learning-by-doing fund:

- Demand management programs should not be based on addressing specific network constraints, as constraint based demand management costs are recovered under the D-factor scheme in NSW
- Programs implemented must be unable to have costs recovered under other state or federal schemes
- Demand management programs to be recovered under the fund should be innovative, and target broad based demand reductions across the DNSPs' networks
- Recoverable programs may be tariff or non-tariff based, however the foregone revenue of tariff based demand management will not be recoverable under the fund.

2.7 Request for submissions

The AER seeks submissions from stakeholders about its proposed demand management incentive scheme for DNSPs in the ACT and NSW for the regulatory control period 2009–2014.

3 Control mechanism for alternative control services

3.1 Requirements of the NER

The amended NER will provide for distribution services to be classified according to the form of regulation applied to those services. There will be two types of regulated services:

- Direct control services
- Negotiated services

Direct control services will be sub-classified as standard control services and alternative control services. Standard control services must be regulated using a building block calculation, however, alternative control services may, but need not be regulated using a building block calculation.

This chapter discusses issues associated with determining the manner in which alternative control services will be regulated in the ACT and NSW. The services that will be classified as alternative control under the transitional chapter 6 Rules, and accordingly to which this chapter is relevant are:

- ACT - the provision of and servicing of meters for customers consuming fewer than 160 megawatt hours per annum (types 5-7 meters), including:
  - meter testing
  - meter reading
  - meter checking
  - the processing of metering data
  - the provision of non-standard meters
- NSW - construction and maintenance of public lighting infrastructure by DNSPs in NSW.

Clause 6.2.5(e) of the transitional Rules require the AER to publish a statement outlining its likely approach to the control mechanism for alternative control services. The statement is not binding, however, if the AER's distribution determination is not in accordance with the statement, the AER will be required to state its reasons for its departure.

3.1.1 Deciding on a control mechanism

The transitional chapter 6 Rules will provide that the control mechanism for alternative control services may consist of:

- a schedule of fixed prices
- caps on the prices of individual services

- caps on the revenue to be derived from a particular combination of services
- tariff basket price control
- revenue yield control
- a combination of any of the above.

Clause 6.2.5(d) specifies factors to which the AER must have regard in deciding on a control mechanism:

- the potential for development of competition in the relevant market and how the control mechanism might influence that potential
- the possible effects of the control mechanism on administrative costs of the AER, the DNSP and users or potential users
- the regulatory arrangements (if any) applicable to the relevant service immediately before the commencement of the distribution determination
- the desirability of consistency between regulatory arrangements for similar services (both within and beyond the relevant jurisdiction)
- any other relevant factor.

3.1.2 Annual pricing approvals

Clause 6.18.2 of the transitional chapter 6 Rules will require DNSPs to submit pricing proposals to the AER on an annual basis that include proposed tariffs and tariff classes for alternative control services. The expected weighted average revenue for each tariff class must comply with prescribed pricing principles to be outlined in the transitional chapter 6 Rules. The AER will be required to approve annual pricing proposals, or make necessary amendments if proposals are deficient.

3.2 Current control mechanisms in the ACT and NSW

3.2.1 ICRC determination

Excluded services in the ACT are subject to a total revenue cap which is escalated annually by CPI.

3.2.2 IPART determination

Rule 2004/1 – Regulation of Excluded Distribution Services of IPART's determination (the Excluded Services Rule) outlines the regulatory framework applied to the construction and maintenance of public lighting infrastructure in the current regulatory control period.

Under IPART's regulatory framework, DNSPs have been required to comply with prescribed pricing principles in setting prices for the construction and maintenance of public lighting infrastructure. These principles require that:

- Prices are to signal the economic costs of service provision by being subsidy free (this requires them to be between incremental and stand alone costs).
- The underlying service classifications, cost data, cost allocations and other elements that contribute to the prices charged by the DNSP should be periodically reviewed and updated where relevant to reflect industry developments and

changes in user requirements and preferences, methods of service provision and costs.

- DNSP must also consider the impact of the price change on customers.

Two months prior to any price changes, DNSPs must submit a public lighting report to IPART outlining the proposed price changes, the costs of providing the services, the service standards supporting those costs, and an assessment of the impact of the changes on customers.

IPART assesses the proposed changes against the pricing principles and whether the DNSP has considered the impacts on customers. If IPART is not satisfied it will require the DNSP to submit an alternative proposal. Any price change information and new prices must be made available to customers one month before the new prices become effective.

Other regulatory arrangements - NSW Public Lighting Code

In addition to the application of the Excluded Services Rule to public lighting services in NSW, the NSW Department of Energy, Utilities and Sustainability (now the NSW Department of Water of Energy) released the NSW Public Lighting Code on 1 January 2006. This is a voluntary code outlining, among other things, minimum maintenance standards and associated service level guarantees, and minimum requirements for inventories.

The AER understands that the Department of Water of Energy is currently reviewing the NSW Public Lighting Code, with a view to determining its effectiveness and whether any amendments are necessary.

3.3 Application of the current mechanisms

3.3.1 ACT

At the 2004 determination, ActewAGL proposed a revenue requirement from metering services of $5.09 million for the first year of the regulatory period. The ICRC assessed this proposal based on the rolled-forward value of the excluded assets and analysis of the build-up of costs associated with providing the excluded services. The ICRC accepted ActewAGL's proposed revenue requirement, concluding it did not represent an excessive return. The current determination allows for the revenue requirement for metering services to be escalated annually by CPI, using the following approach:

Where:

- MARt-1 is the maximum average revenue allowance for the previous year
- CPI is the Consumer Price Index

The CPI value used for escalating the MAR each year is determined using the following formula:

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

3.3.2 NSW

Discussions with the NSW DNSPs have indicated that the Excluded Services Rule has been implemented slightly differently by each NSW DNSP.

Country Energy

Country Energy submitted its most recent public lighting pricing application to IPART in April 2007. It determined the costs of providing public lighting services through a building block approach. This approach provides for the operating and maintenance costs, as well as a return on and return of the capital costs of public lighting assets within Country Energy's network. Country Energy has determined the capital costs of its assets using the depreciated replacement cost, based on the weighted average age of assets the standard lives of each asset class, and applying a 7 per cent real return on these assets, consistent with the return allowed for its prescribed services.

Country Energy stated in its application that it is still transitioning to cost reflective prices for public lighting. It proposed to increase prices by a weighted average nominal rate of 5.22 per cent. Country Energy sought to reflect economic costs and subsidy-free prices by limiting tariffs to the economic cost of the service. Country Energy also applied a tariff basket limit or side constraint for each customer bill of CPI plus 4.5 per cent. IPART approved Country Energy's application in June 2007.

EnergyAustralia

EnergyAustralia submitted its primary public lighting pricing proposal to IPART in June 2005. In this proposal EnergyAustralia stated that existing EnergyAustralia tariffs were not cost reflective, resulting in a revenue shortfall. To rectify the revenue shortfall, EnergyAustralia proposed a series of phased revenue increases, taking a revenue cap form, over the 2004–09 regulatory control period.

In response to EnergyAustralia's application, IPART allowed a revenue path increasing by 10 per cent in 2005–06 followed by 5 per cent p.a. increases thereafter. Side constraints were also applied to EnergyAustralia's public lighting prices. These took the form of a tariff basket constraint in which individual customer bills were not allowed to increase by more than 7.9 per cent for each of the financial years 2005 – 2008 to limit the customer impact.

While EnergyAustralia sought to reflect the economic cost of providing services, the application aimed to provide sufficient revenue in the short term to meet costs. Some non-cost reflective prices were allowed to persist to ensure appropriate revenue outcomes for EnergyAustralia in the long term.

Integral Energy

Integral Energy submitted its most recent public lighting pricing application to IPART in June 2007. It determined the costs of providing public lighting services through a building block approach. This approach provides for the operating and maintenance costs, as well as a return on and return of the capital costs of public lighting assets within Integral Energy's network. Integral Energy has determined the capital costs of its assets using the depreciated replacement cost, based on the weighted average age of assets the standard lives of each asset class, and applying a 7 per cent real return on these assets, consistent with the return allowed for its prescribed services.

Integral Energy states that it is still transitioning to cost reflective prices for public lighting. It proposed to increase prices by CPI plus 2 per cent. Integral Energy foreshadowed further real price increases to move the prices toward cost reflectivity.

The AER understands that IPART's review of Integral's most recent public lighting pricing application has not yet been concluded.

3.4 Submissions

3.4.1 ACT

The AER received one submission from ActewAGL on alternative control services in the ACT.

Form of control

ActewAGL submitted that it supports the continuation of the existing total revenue cap control for alternative control services in the ACT. However, it stated that the revenue cap must recognise the existing regulatory arrangement whereby ActewAGL is allowed to recover additional costs associated with meeting the requirement to install interval meters to all new and replacement installations, and at the request of customers.

ActewAGL stated that the AER should explicitly address the possible need to pass through additional costs associated with the mandatory deployment of interval meters and acknowledge in its determination that these costs may be fully recovered.

Determining the revenue allowance

ActewAGL submitted that the revenue cap for alternative control services in the ACT should be derived using a limited building block approach, adopting the value of metering assets identified by the ICRC in the 2004 determination as the starting point.

3.4.2 NSW

The AER received eight submissions on alternative control services in NSW. These were from Country Energy, EnergyAustralia, Integral Energy, Shellharbour City Council, Southern Sydney Regional Organisation of Councils (SSROC), the Local Government Association of NSW (LGA), ETSA Utilities (ETSA) and Energy Markets Reform Forum (EMRF). A summary of the issues raised in submissions are outlined below.

Form of control

Consistency between Excluded Services Rule and the transitional chapter 6 Rules

Country Energy, EnergyAustralia, Integral Energy and Shellharbour City Council all considered that the Excluded Services Rule was broadly consistent with the transitional chapter 6 Rules in its implementation and effect. EnergyAustralia highlighted a number of consistencies between the implementation of the Excluded Services Rule and the requirements of the transitional chapter 6 Rules. In particular, the Excluded Service Rule:

- Places a control on the total revenue the DNSP can earn from public lighting infrastructure
- Places a further control on the movement in revenues
- Requires separate submission of the cost/price/service offering which can be rejected by IPART
- Explicitly provides for negotiable aspects of the service.

Similarly, Shellharbour City Council stated that the Excluded Services Rule would meet the requirements of the transitional chapter 6 Rules as it sets a mechanism to control the cost of public lighting and DNSP revenues.

No submissions were received that supported the view that the Excluded Services Rule could not be applied in a manner consistent with the transitional chapter 6 Rules.

Future application of the Excluded Services Rule

Country Energy, EnergyAustralia and Integral Energy proposed that the existing form of regulatory control over public lighting should be maintained to the extent possible under the transitional chapter 6 Rules. This was due to the limited time available for DNSPs to develop a relevant regulatory proposal for the next regulatory control period, which, EnergyAustralia noted, may be impeded by significant changes to the regulatory mechanism. Similarly, Integral Energy stated that continuity with the current mechanism would minimise transitional costs.

EnergyAustralia also considered the AER should apply the pricing principles outlined in the Excluded Services Rule as the basis of prices.

DNSPs did note that modifications to the existing Excluded Services Rule may enhance the regulatory framework. In particular, Country Energy noted that the determination of a future price path was preferred to the repetitive and costly annual process currently utilised under the existing regulatory framework. SSROC also noted that the existing regulatory processes were contentious and lengthy.

Proposed form of control

Country Energy, EnergyAustralia and Integral Energy all proposed that the existing form of control, that is, a schedule of fixed prices, should apply in the first year of the next regulatory control period. Additionally, they proposed that remaining prices should be adjusted according to a fixed price path. Integral Energy considered that this approach would maximise consistency with the current regulatory control period, provide transparency of costs and efficiency benefits while limiting the administrative burden of the process.

EnergyAustralia noted that under the transitional chapter 6 Rules the existing control mechanism would need to be adjusted to explicitly state:

- a schedule of fixed prices for the opening year of the regulatory control period
- a control on total revenues to be earned from the service over the regulatory period
- a separate constraint on prices charged to each customer.

ETSA, the South Australian distributor, did not support any form of price and/or revenue control for public lighting services due to volume and scope uncertainties. ETSA stated that prices (and pricing processes) should be reviewed by management periodically as a fair and reasonable approach to setting prices. Further, overall financial performance of public lighting should be overseen by the AER through the regulatory accounts and reviews of customer complaints.

SSROC proposed the Victorian form of regulation for consideration. This form of regulation includes a detailed public lighting pricing model covering the most common types of lighting. This model was developed following a public process in consultation with customers and DNSPs. SSROC stated that this approach, using a schedule of fixed prices based on a building block review of underlying costs of service, provides a readily understood pricing outcome and clear set of benchmarks for all stakeholders.

Assessment of efficient costs

Building block analysis

Country Energy, EnergyAustralia and Integral Energy supported a limited building block analysis to determine the efficient costs for public lighting services. EnergyAustralia noted that such analysis was necessary to ensure that prices signal the economic cost of the service, and Integral Energy noted that it would provide confidence that any price path was appropriate.

EnergyAustralia and Integral Energy noted that a limited form of analysis would be more consistent with a light-handed regulatory framework for alternative control services. Integral Energy stated that a detailed assessment would be costly.

The Shellharbour City Council submitted that an escalation of the current allowances, as opposed to a building block analysis, was an appropriate short-term form of control. It stated that this would provide appropriate cost controls during the next regulatory control period. In the longer term the Shellharbour City Council supported a building block analysis.

ETSA submitted that alternative control, or previously excluded, services should be subject to a light-handed, fair and reasonable approach. ETSA did not consider that a detailed building block analysis was appropriate for these services as it reflected a more heavy-handed approach.

EMRF did not support an abbreviated cost review. EMRF stated that prices for a regulated service must be demonstrably reasonable to provide confidence in the regulatory system. EMRF considered that the AER should conduct a full assessment of the costs underlying prices. This would allow future cost assessments to be conducted on a less stringent basis.

Regulatory asset base

SSROC and the LGA did not support rolling forward any existing DNSP asset bases as a starting point for valuing public lighting assets. The SSROC and the LGA stated that the current valuations may not be reflective of the current state of the public lighting assets owned by the DNSPs. SSROC and the LGA proposed that the AER

conduct a revaluation of the current regulatory asset base and past investment decisions which impact upon future capex levels.

All NSW DNSPs supported a limited building block analysis. EnergyAustralia did not support an independent, bottom-up assessment of the regulatory asset base. Instead, it considered that the AER should allow an approach based on simplified assumptions, rather than the revaluation of its 1.3 million public lighting assets.

Cost criteria

Country Energy and Integral Energy stated that costs should be assessed on a simple criterion of efficiency. Country Energy considered that the NSW Public Lighting Code could be used as a reference point to assess efficiency, in addition to the capex and opex costs which formed the basis of IPART's previously approved public lighting price assessments.

SSROC and the LGA supported a clear test of efficient costs of service to avoid inefficiencies in public lighting costs.

Price path escalators

Country Energy proposed that the price path established for the next regulatory control period should be based on an approved cost escalator consistent with that applied to standard control services at each annual pricing proposal. Integral Energy also proposed that escalators for any price path should be identified in the regulatory proposal and actual values attributed to these escalators during the annual pricing process.

EnergyAustralia considered that an escalation of prices based on a CPI adjusted price or revenue path was practical. It noted that prices should not be escalated without reference to cost, and that costs diminutions or increases should be reflected in prices.

Other issues raised in submissions

Service levels

SSROC and the LGA highlighted a number of concerns regarding services provided by DNSPs in relation to public lighting. In particular, SSROC and the LGA submitted that:

- There must be a clear link between price and service levels – SSROC and the LGA considered that pricing must be based on clearly defined service levels.
- Councils should have input over public lighting technology choices

Shellharbour City Council noted some dissatisfaction with the levels of service provided by its DNSP in relation to timely fault rectification. It saw benefits in the regulatory framework for public lighting in increasing competition.

Information transparency and price caps

SSROC and the LGA stated that information asymmetries exist in the current public lighting pricing review processes. SSROC and the LGA stated that the public lighting pricing information provided to customers has been limited and has affected

customer's ability to make appropriate cost assessments of pricing changes. SSROC and the LGA considered that more information should be provided.[15]

Shellharbour City Council saw benefit in the regulatory framework providing a more open and transparent system where DNSPs are more accountable in justifying operating costs to support any price rises above the CPI.

Further, SSROC and the LGA highlighted that the timing of price reviews and rate capping create significant challenges for councils to manage public lighting costs. In particular, SSROC and the LGA stated that price increases above CPI place a significant strain on council budgets and can result in cutbacks to other community services.

The regulatory proposal process

EnergyAustralia and Integral Energy proposed processes for DNSPs and the AER to follow in proposing and determining the form of control for public lighting services.

EnergyAustralia stated that the DNSP regulatory proposal should include:

- An overview of the public lighting services provided
- A proposed control mechanism and its application
- Underlying cost information that support the control mechanism proposed, including:
  - a justification of costs and prices
  - a demonstration of price and cost movements over the next regulatory period and
  - where prices are significantly different from efficient costs, a phased approach towards efficient costs.

Further in the AER draft determination, EnergyAustralia proposed that the AER decide if the DNSP's proposal:

- Meets the requirements of Part B of the rules
- is consistent with the pricing principles, costs and costing methodology and customer impact provisions of the Excluded Services rule.

Integral Energy highlighted the time constraints on DNSPs in preparing an application which is consistent with the AER's proposed regulatory framework. Integral Energy proposed a phased approach to implementing the regulatory mechanism.

Integral Energy proposed that the regulatory proposal should:

1 [15] SSROC considered that the following information should be made available: access to asset inventories, past and projected expenditures (and breakdowns of these expenditures), cost allocations, cost components, asset replacement policies, asset renewal programme details, maintenance program details and a variety of other pricing and policy information.

- Outline the proposed form/s of control to apply over the next regulatory control period
- demonstrate its functionality
- contain supporting information to demonstrate the way the control mechanism will apply (Integral Energy calls this the 'proof of concept').

Integral Energy also proposed an interim period in which the DNSP provides information to support its regulatory proposal. Proposed prices for public lighting services would then be outlined in the 2009 prices review.

3.5 Consideration of issues

3.5.1 Form of control

Consideration of current regulatory arrangements and ongoing application

The AER considers that the implementation of the current regulatory arrangements for public lighting, under the Excluded Services Rule, has been broadly consistent with the requirements of the transitional Chapter 6 rules. This is demonstrated in that all NSW DNSPs have applied a cost based form of control, the application of which was outlined in each price change application, and IPART has exercised control over pricing through the price change process.

This view was supported by the NSW DNSPs and Shellharbour City Council.

The AER proposes to maintain the form of control applied to NSW DNSPs to the extent to which they are consistent with the transitional Chapter 6 rules.

Proposed form of control

The transitional Chapter 6 rules require that the AER establish an explicit control mechanism (or mechanisms) to apply to public lighting services during the next regulatory control period. Consistent with the present regulatory period, the AER will apply a schedule of fixed prices in the first year of the regulatory control period as its primary form of control. It will also determine a price path price path based on efficient costs for the remaining years of the regulatory control period, to be set down in the AER's regulatory determination.

The AER considers that maintaining consistency with the current control mechanism is the most pragmatic approach to regulating public lighting services in the next regulatory control period. The AER notes that this form of control has been subject to public consultation and price reviews by IPART, giving assurance of its robust nature. DNSPs have also had sufficient time to develop systems and models compliant with the primary form of control. The AER considers that maintaining these arrangements through a schedule of fixed prices minimises the regulatory costs of moving to a new control mechanism in the time available.

The AER also proposes to apply a price path control in the remaining years of the next regulatory control period. It considers this to be an enhancement to the existing regulatory framework, which provided limited price certainty through ad hoc price

change processes. Submissions have noted that these processes have been contentious, repetitive and costly for parties.

The AER considers that a price path will minimise the ongoing costs and difficulties of applying the regulatory control mechanisms for public lighting for all parties involved. It considers that the proposed approach will:

- provide predictable pricing outcomes for customers
- limit price volatility
- provide transparent information to interested parties
- simplify the pricing approvals process, avoiding repetitious and lengthy processes.

The AER has also considered ETSA's submission regarding the form of control. ETSA proposed that price reviews should be conducted by management and the AER should only review the overall financial performance of public lighting services and customer complaints. The AER does not consider this proposal to be consistent with the transitional Chapter 6 rules, which clearly requires a form of control on prices or revenues to be proposed, determined and applied over the next regulatory control period. Further, the transitional Chapter 6 rules require the AER to conduct annual pricing reviews, which is contrary to ETSA's proposal.

SSROC and the LGA also proposed for consideration the form of control applied to public lighting in Victoria. This form of regulation is based on a schedule of fixed prices based on the efficient costs of a public lighting service provider. SSROC and the LGA stated that this approach provided readily understood pricing outcomes and a clear set of benchmarking data.

The AER has reviewed the Victorian model and has considered its potential application over the next regulatory control period. The AER notes that the Victorian model was developed by the Essential Services Commission of Victoria following an extensive period of development, review and consultation with stakeholders. The AER does not consider that a similar process could be undertaken in the time frames available or without an inappropriate cost impost for all key stakeholders. As such, the AER does not propose to apply the Victorian model of regulation in next regulatory control period.

3.5.2 Assessment of efficient costs

The transitional Chapter 6 rules require the AER to outline the method for implementing the form of control over the next regulatory control period. The transitional Chapter 6 rules allows the AER to utilise elements such as a building block analysis as the basis of the control mechanism applied to public lighting services. The AER's consideration of the appropriate methodology is outlined below.

Building block analysis

The AER intends to assess the efficient costs of providing public lighting services proposed under the form of control through a limited form of building block analysis. To reflect the nature of alternative control services, as distinct from standard control

services, the AER will allow DNSPs to conduct this analysis in a manner consistent with their present approach, that is a simplified or limited building block approach.

Under the limited building block approach, DNSPs must submit information for each building block element set out in the transitional rules in its regulatory proposal. As such, DNSPs must outline the historic and expected capex and opex costs, including replacement costs based on registered assets. The AER will allow DNSPs to simplify the building block approach in the following ways:

- DNSPs will not be required to provide a separate proposal on the Weighted Average Cost of Capital (WACC) for public lighting services. DNSPs may propose the same WACC as applied to standard control services.

- DNSPs may propose reasonable simplifying assumptions within the building block model. In particular, the AER will accept the present depreciation assumptions applied by DNSPs.

- DNSPs may base its opening regulatory asset base on the existing regulatory asset base, with any efficient adjustments from the current regulatory control period.

The AER notes that a limited building block approach was supported by all NSW DNSPs.

The AER notes Shellharbour City Council's view that current allowances should be escalated and should not be subject to building black analysis. The AER will not apply this proposal as its primary approach to assessing public lighting costs as it considers the building block approach to provide an appropriate level of transparency and certainty that the costs and prices proposed by DNSPs are efficient, which is beneficial to both customers and DNSPs. However, the AER does expect that the allowances proposed in the next regulatory control period will be related to those in the current regulatory control and DNSPs should explain any reasons for differences between the historical and proposed allowances.

EMRF supported a detailed building block review, to ensure that prices for public lighting services are reasonable. The AER agrees that a building block analysis provides stakeholders with clear assurance of underlying costs, and as such, has proposed that it form part of the regulatory assessment of costs and prices. However, the AER considers that the distinct nature of standard and alternative control services must be reflected through the regulatory framework and the resulting regulatory imposts. The AER considers that a limited building block analysis more appropriately reflects these considerations, especially balancing transparency and administrative burden, while providing robust cost information.

Regulatory asset base

The AER proposes to conduct a high level evaluation of the existing DNSP regulatory asset bases for public lighting. The AER will apply the historical asset base with any adjustments resulting from the current regulatory control period.

To assist the AER in its evaluation, DNSPs must provide historical and proposed regulatory asset base and provide supporting information, including

- The regulatory asset base and asset register as at 1 July 2004
- the proposed regulatory asset base and asset register as at 30 June 2009
- information to support the proposed opening regulatory asset base value.

The AER considers that the historical regulatory asset base values are a reasonable basis on which to determine the opening asset base in the next regulatory period. The AER notes that these regulatory values were scrutinised and set-down by IPART in the last regulatory control period. The AER does not propose to duplicate this process due to the material regulatory cost impost of revaluing an established regulatory asset base and a significant number of low value assets. Further, the AER recognises the limited ability of DNSPs to provide a complete regulatory proposal for public lighting in the context of the larger regulatory reset preparation being undertaken by DNSPs at the present time.

Cost criteria

The AER will assess public lighting costs on the basis of efficiency. The AER considers that this approach is consistent with the light-handed regulatory regime envisage by the transitional Chapter 6 rules for alternative control services. It also notes that it was supported in submissions by Country Energy, Integral Energy and Shellharbour City Council.

Consistent with Country Energy's submission, the AER will also use the NSW Public Lighting Code as a general service level benchmark for assessing efficient costs. Further discussion of the application of the NSW Public Lighting Code is outlined in section 3.6.4.

Price path escalators

The AER considers that all price path escalators should be proposed and valued in the DNSP regulatory proposal. These escalators should be based on the cost information provided by the simplified building block analysis, and DNSPs should demonstrate the relationship between the final escalators and this analysis. DNSPs should also submit indicative prices in its regulatory proposal for the next regulatory control period based on the proposed escalator values.

The AER notes that this proposed approach is not consistent with Integral Energy's submission. This submission stated that DNSPs should identify the price path escalators in the regulatory proposal but only attribute values to these escalators in the following annual pricing review. The AER has not accepted this submission as it does not address the requirement of the transitional Chapter 6 rules to outline indicative prices. Further, the proposal does not address the persistent concerns with the present ad-hoc price approval system which some submissions describe as lengthy, uncertain and repetitive. The AER notes that its proposal will result in a greater regulatory cost impost in the short term, but considers that DNSPs and customers will benefit from the proposed process through lower long-term costs and greater price path certainty.

The AER also does not agree with Country Energy's submission that the price path escalator should be consistent with the X-factor applied to standard control services. As an alternative control service, the AER considers that public lighting escalators

should reflect public lighting costs, and not those of standard control services. As such, the AER will apply price path escalators based on the efficient costs of providing public lighting services in NSW.

3.5.3 Other issues raised in submissions

Service levels

The AER notes the concerns regarding service levels raised within submissions. The AER considers that it is appropriate that there is a clear relationship between service levels and prices in the next regulatory period. As such, the AER will allow DNSPs to collect revenues through prices which are reflective of the costs of providing efficient public lighting services of a particular standard. The AER will apply the voluntary NSW Public Lighting Code as this standard of service level performance. The AER considers that using the standards outlined in the Code as the basis of costs and prices should ensure that there is a greater transparency for users, as raised by SSROC and the LGA.

To ensure that prices are reflective of service level costs, DNSPs must demonstrate how their costs reflect the agreed levels of service for public lighting in their regulatory proposals. Where the service level outlined in the Public Lighting Code is not acceptable or appropriate, customers may negotiate with the DNSP for a variation in prices reflective of the agreed service levels.

The AER does not intend to duplicate the functions of the Department of Water and Energy in reviewing or enforcing the standards outlined in the Public Lighting Code. Disputes regarding the implementation of the regulatory allowance and the related standards of service should be resolved through the avenues provided by the Public Lighting Code.

Information transparency and price caps

The AER has taken into account stakeholder concerns regarding the transparency of information underlying prices and the impact of price caps on local councils. The AER has endeavoured to address these issues in the form of control and processes it has applied to public lighting services. It considers that these features of the regulatory framework will result in greater transparency between costs and prices. The AER also considers that the proposed price path and annual pricing review processes to set tariff prices and their individual tariff components will also provide more certainty for customers in regards to prices and price changes.

Pricing

EnergyAustralia proposed that the AER apply the pricing principles outlined in the Excluded Services Rule. The AER notes that NSW DNSPs will be required to follow the pricing principles outlined in the transitional Chapter 6 rules. As such, pricing will not be assessed against the criteria outlined in the Excluded Services Rule.

The regulatory proposal process

The AER notes that the transitional Chapter 6 rules set out the broad information requirements for DNSP regulatory proposals in relation to alternative control services. These require that a DNSPs regulatory proposal include:

- The proposed control mechanism, a demonstration of the application of the proposed control mechanism, and the necessary supporting information
- in the case of a departure from the AER's likely approach to the relevant control mechanisms for alternative control services a statement of the reasons justifying the departure
- indicative prices for each year of the regulatory control period.

The AER does not consider that these information requirements allow for the gradual provision of information to the AER. As such, the transitional Chapter 6 rules do not appear to allow the three stage process outlined in Integral Energy's submission.

The AER also notes that the transitional Chapter 6 rules will require DNSPs to outline indicative prices within the regulatory proposal. As such, DNSPs may not only provide "proof of concept" information regarding the form and operation of control for public lighting services.

3.5.4 Consideration of specific factors

The transitional Chapter 6 rules set out a number of factors for consideration in setting the form of control to apply to alternative control services. The AER's consideration of these issues (where they have not otherwise been addressed) is set out below.

Potential for the development of competition and how the control mechanism might influence that potential

The AER maintains its view that, at present, there is limited competition in the market for the provision of public lighting services. While there is competition for the construction of new public lighting assets, there does not appear to be competition for maintenance services for existing infrastructure.

The AER considers that there is potential for the development of competition in the maintenance of these assets by an external provider. It considers that the proposed form of control would assist the development of external competition as it seeks to established prices which are reflective of efficient costs and acceptable service levels. This view is supported by Shellharbour City Council which acknowledged the potential benefits of the transitional Chapter 6 rules to increase competition for alternative control services.

Possible effects of the control mechanism on administrative costs to the AER, the DNSP and users or potential users

The AER considers that the proposed control mechanism minimises the administrative costs to the AER, the DNSPs and users or potential users over the next regulatory control period. The AER estimates that the proposed regulatory control mechanism will result in higher regulatory costs during the regulatory proposal process. However, these costs should be strongly offset by the establishment of a price-path mechanism, which is proposed to avoid the lengthy price change processes of the current regulatory control period, as noted in submissions.

The regulatory arrangements (if any) applicable to the relevant service immediately before the commencement of the distribution determination

The AER has provided extensive considerations on the applicability of the existing regulatory arrangements in section 3.6.1.

The desirability of consistency between regulatory arrangements for similar services (both within and beyond the relevant jurisdiction)

The AER considers that consistency between regulatory arrangements for similar services across the National Electricity Market is desirable. However, in view of the limited time available to provide guidance on the AER's likely approach to determining a control mechanism, the AER does not consider that it is possible to seek to align the approach in NSW with that in other jurisdictions.

In summary, the AER considers that the current arrangements are a useful starting point but there are some elements that are inconsistent with the transitional rules that require adjustment, in particular, a five year price path and indicative prices.

3.6 Preliminary position

3.6.1 ACT

The AER considers that retaining the existing approach to regulating ActewAGL's alternative control services for the next regulatory control period, is appropriate and consistent with the transitional Chapter 6 rules. Accordingly, it proposes to maintain the total revenue control mechanism adopted by the ICRC during the current regulatory control period.

Under this approach, ActewAGL would propose a revenue allowance based on a limited building block analysis, with maximum allowable revenues to be escalated each year by CPI. Consistent with the approach taken in the current regulatory period, the revenue allowance would be established based on the rolled-forward value of the relevant metering assets, and an analysis of the build-up of costs associated with providing the services. ActewAGL's building block proposal for these services would need to include some detail on the build-up of costs. In assessing these costs the AER would have regard to whether the proposed costs are efficient. The AER proposes to allow a return on capital for alternative control services, equal to that allowed for standard control services.

The AER recognises the potential for ActewAGL to incur additional costs in meeting obligations to roll-out interval meters. It further acknowledges the intent of the ICRC in mandating the roll-out in the ACT, that the cost of interval meters would be recovered by ActewAGL through distribution charges. It is also noted that the Ministerial Council on Energy (MCE) has recently created minimum functionality requirements for interval meters, to be established in the NER. The AER acknowledges this may have cost implications for ActewAGL during the next regulatory control period.

Based on the information before it, the AER's preliminary view is that additional efficient costs incurred through meeting these obligations during the next regulatory control period, should be recovered through ActewAGL's charges. It is anticipated

that the recovery of additional costs associated with alternative control services may be accommodated under clause 6.2.6(c) of the transitional Chapter 6 rules. This clause provides for elements of Part C of the transitional Chapter 6 rules – including cost pass through provisions – to be adopted in the control mechanism for alternative control services.

While this preliminary position paper sets out the AER's proposed approach, determining the arrangements for cost-pass throughs for alternative control services is an issue to be addressed at the distribution determination. Consistent with clause 6.2.8(c) the approach proposed in this guideline is not mandatory. However, if the AER makes a distribution determination that is not in accordance with this guideline, it must state in the determination, the reasons for departing from it.

3.6.2 NSW

Proposed form of control and implementation for public lighting in NSW

The transitional rules require the AER to set out an explicit control mechanism (or mechanisms) to apply to public lighting services during the next regulatory control period. The AER proposes to apply the following forms of control to public lighting services over the next regulatory period:

- a schedule of fixed prices in the first year of the regulatory control period
- price path established on the basis of revealed efficient costs (such as CPI-x) for the remaining years of the regulatory control period.

The AER proposes to assess the efficient costs of providing public lighting services proposed under the form of control through a limited building block analysis. The AER will allow DNSPs to simplify the building block approach in the following ways:

- DNSPs will not be required to provide a separate proposal on the Weighted Average Cost of Capital (WACC) for public lighting services. DNSPs may propose the same WACC as applied to standard control services.
- DNSPs may propose reasonable simplifying assumptions within the building block model. In particular, the AER will accept the present depreciation assumptions applied by DNSPs.
- DNSPs may base its opening regulatory asset base on the existing regulatory asset base, with any efficient adjustments for capex and depreciation in the current regulatory control period.

The AER proposes to conduct a high level evaluation of the existing DNSP regulatory asset bases for public lighting. The AER will apply the historical asset base with any adjustments resulting from the current regulatory control period.

Regulatory proposal for public lighting in NSW

The transitional Chapter 6 rules outline the information which must be provided as part of the DNSPs regulatory proposal for alternative control services. This includes:

- The proposed control mechanism, a demonstration of the application of the proposed control mechanism, and the necessary supporting information

- In the case of a departure from the AER's likely approach to the relevant control mechanisms for alternative control services a statement of the reasons justifying the departure
- Indicative prices for each year of the regulatory control period
- Identification of any negotiable components and the proposed negotiating framework

The AER considers that the following information should be provided to support the proposed control mechanism:

- An overview of the public lighting services provided by the DNSP
- Cost information, including:
  - The historic capex and opex costs, including replacement costs based on the asset register
  - The proposed capex and opex costs over the next regulatory control period, including replacement costs based on the asset register
  - DNSP's must justify any material differences between historic and proposed costs
- Regulatory asset base information, including:
  - The opening regulatory asset base and asset register as at 1 July 2004
  - The proposed opening regulatory asset base and asset register as at 30 June 2009
  - Information to support any proposed adjustments to the opening regulatory asset base value due to capex and opex as at 1 July 2004.
- Pricing information, including:
  - A proposed price path based on building block analysis
  - Indicative prices for each year of the regulatory control period
- Service level information, including:
  - A demonstration how the proposed costs reflect the levels of service for public lighting in their regulatory proposals
  - Where the service level outlined in the Public Lighting Code is not acceptable or appropriate, customers may negotiate with the DNSP for a variation in prices reflective of the agreed service levels.

Annual pricing proposal for public lighting in NSW

Under the transitional Chapter 6 rules, DNSPs will be required to submit an annual pricing proposal for public lighting services. DNSPs will be required to follow the pricing principles outlined in the transitional Chapter 6 rules.

3.7 Request for submissions

The AER seeks submissions from stakeholders about its preliminary position on the control mechanism for alternative control services for DNSPs in the ACT and NSW for the regulatory control period 2009–2014.

4 Guideline on determining materiality for pass through events

4.1 Requirements of the NER

The transitional rules provide that a pass through event that has a material impact on the costs of providing direct control services may, subject to the AER's approval, be passed through to consumers. This chapter sets out the AER's preliminary position to determining what will constitute a material impact on costs.

Clause 6.6.1 of the transitional rules allows a distribution determination to be amended to account for the costs of specified events that have not been accounted for in the determination. Such an event is referred to in the transitional rules as a pass through event. The transitional rules require that there is certainty as to which events may constitute pass through events before the regulatory control period commences. The costs of an event may not be passed through unless the event is specified as a pass through event in the NER or by the AER in its distribution determination.

The NER prescribe that the following types of events can be considered for pass through events if they impact on the DNSP's costs:

- a change in taxes
- a change in legislation
- a change in licence conditions
- a terrorism event

The only other events that may be considered for pass throughs are those which the AER explicitly describes in its revenue determination.

An event will only constitute a pass through event if the event materially increases the costs of providing direct control services. Therefore, in determining whether the costs of an event should be passed through, the AER must consider the materiality of the costs.

Clause 6.2.8(a)(4) of the transitional rules provide that the AER may publish a guideline as to the AER's likely approach to determining materiality in the context of possible pass through events. The guideline is not binding, however, if the AER's distribution determination is not in accordance with the guideline, the AER will be required to state its reasons for departing from the guideline.

The AER considers it appropriate to publish a guideline which specifies a materiality threshold to aid certainty and to avoid unnecessary debate that might occur at the time when a pass through event occurs.

4.2 Submissions

The AER released an issues paper in November 2007 on determining materiality for pass through events. The AER sought comment regarding possible approaches to the way it determines materiality, and comment as to an appropriate value for the

threshold. The submissions the AER received are available on the AER website. In particular, the AER has received submissions on the issues set out below.

4.2.1 Type of threshold

Submissions were sought in respect of whether the threshold should be set in terms of a DNSP's annual revenue or the magnitude of the cost impact of the event. The AER received 6 submissions which considered the type of threshold the AER should adopt. These were from EnergyAustralia, Integral Energy, Country Energy, ActewAGL, ETSA Utilities and Shellharbour City Council.

EnergyAustralia, Integral Energy and Country Energy all supported considering the revenue impact of events (based on a percentage of revenue) to determine if they are material. Shellharbour City Council supported the current approach adopted by IPART.

Integral submitted that materiality should be assessed by reference to the revenue impact, 'with this term understood to refer to both the opex and capex implications of the event'.

EnergyAustralia, ActewAGL and Country Energy submitted that in addition to a threshold which considers the revenue impact of an event, DNSPs have the option to use an alternate threshold which considers the cost impact of an event.

ETSA Utilities considered that, in the event a materiality threshold is required, the percentage of income is an inappropriate measure. ETSA submitted a better measure would be a percentage of EBIT (probably similar to the level of annual opex). For example, 1 per cent of revenue sounds small, but equates to 4 per cent of the distributor's EBIT which is significant.

4.2.2 Value of threshold

Submissions were sought on the magnitude of any threshold. The AER received 5 submissions which considered an appropriate threshold.

EA's submission supported setting a threshold at 1 per cent of average annual revenue as well as a threshold which considers the cost of the project. Integral Energy proposed a threshold of 0.5 per cent of average annual revenue.

ETSA Utilities submitted that if a materiality threshold must be introduced, the threshold should be a maximum of 2 per cent of a single year's EBIT (or 0.5 per cent of a single year's revenue).

ActewAGL submitted that the AER should consider 'no threshold' or a threshold of zero as one of the options.

4.2.3 Different thresholds for different DNSPs

The AER received three submissions which consider the possibility of adopting different thresholds for different DNSPs. ActewAGL, Country Energy and EnergyAustralia submitted that it may be appropriate to apply a DNSP-specific threshold based on an assessment of 'materiality' to each specific business.

Country Energy proposed the threshold should be either a set level of revenue impact or cost impact of the event. The event should be assessed from both a revenue and cost impact basis, and if either threshold is breached, then the pass through event would be triggered.

ActewAGL proposed a solution which assessed 'materiality' to each specific business. Alternatively, ActewAGL and EnergyAustralia proposed the AER consider a two stage materiality test that incorporates a 'safety net' for larger DNSPs.

Without a safety net, a percentage based threshold could exclude material events from being passed through due to the size of the particular DNSP's annual revenue. The proposal put forward is that the safety net be expressed in an absolute dollar value and the same value would apply to all businesses. If the cost impact of the event exceeds the amount, the event will be deemed material.

4.3 Consideration of issues

4.3.1 Type of threshold

In one sense there should be no difference between a revenue or cost threshold because a DNSP's revenue is based on an assessment of its forecast efficient costs. However, the need for a threshold is linked to the ability of a business to absorb some costs – this measure is intended to address only those events that impact seriously on the DNSP's financial position. For this reason, a revenue impact measure is more appropriate.

Previous decisions

Both IPART and the ICRC assessed materiality of events by looking at the revenue impact of the event (the approaches are set out below).[16] IPART used the revenue model to determine the revenue impacts of an event, whereas the ICRC adopted a more simple approach that attempted to link the costs to an estimate of the revenue impact derived by using assumptions rather than the revenue model.

The formula which the ICRC used to determine annualised cost or revenue impact was a simplified formula which worked out approximately what the revenue impact of the event is – it allowed a dollar for every dollar of opex and 15 per cent of total capex (15 per cent is a 'rule of thumb' figure to determine the return on and of capital).

2 [16] Although ICRC actually set the threshold at $1m, the way it assessed capex was actually to assess the revenue impact of the capex. Given ActewAGL's average annual expenditure is around $90-105m a year this equates to approximately 1 per cent.

IPART's approach is represented in the following formula:

Average annual revenue impact over the remaining life of the regulatory period > 1% average annual smoothed revenue

Where:

Average annual revenue impact over the remaining life of the regulatory period is calculated as:

$$\left(\frac{\text{revenue impact}}{X}\right)\times 12$$

And:

Revenue impact = the revenue impact of the total cost (both opex and capex) of the pass through event during the regulatory period (determined in accordance with the revenue model)

X = the number of months remaining in the regulatory period

Average annual smoothed revenue = sum of the annual revenue requirement for each regulatory year of the regulatory control period/number of years in the regulatory control period.

4.3.2 Value of threshold

The value of the threshold needs to take account of the capacity of the business to absorb a shock. Establishing the threshold as a percentage of revenues overcomes the problem of defining a specific amount. Larger businesses have greater capacity to absorb shocks.

The requirement under the NER is to set a threshold that excludes pass through events which are not material. The NER do not provide any guide to how the AER should assess materiality. In the interest of regulatory consistency the AER has taken account of thresholds set by IPART and the ICRC as well as other materiality thresholds that apply (these are set out below).

A consideration in determining the appropriate threshold is to minimise the consequence of inaccurate forecasting. While the AER supports the current incentive-based regulatory framework, the AER would like to ensure that it does not set the threshold too high so as to prevent DNSPs from recovering legitimate and efficient costs. The AER also notes that a low threshold may reduce the incentive the DNSP might have to effectively manage legitimate costs.

The AER is mindful that the NER have been designed so that events which are not material are not passed through. There is an implicit assumption in the NER that the threshold should be above 'zero' as submitted by ActewAGL.

Several submissions have also mentioned that there are administrative costs involved in pass throughs. As such it is appropriate that the threshold exclude events from being passed through which are less than the administrative costs associated with the pass through.

Other thresholds that have been adopted

- *ICRC 2004-05 to 2008-09 decision*

  The ICRC determined that the revenue impact of a pass through event was required to exceed a threshold of $1 million before the event was deemed 'material'. The revenue impact of this threshold was approximately 1 per cent of average annual revenue.

- *IPART 2004-05 to 2008-09 decision*

  IPART defined a materiality threshold equivalent to 1 per cent of average annual smoothed revenue requirements over the regulatory period per event (set out above).

- *Cost pass throughs in transmission*

  Rather than assessing the revenue impact of an event, the transmission rules generally assess the costs of an event.

  A pass through in transmission is material if the change in costs is likely to incur in any regulatory year of the regulatory control period, exceeds 1 per cent of the maximum allowed revenue for the TNSP for that regulatory year.

- *Reopening of revenue determination for capital expenditure (transmission)*

  Clause 6A.7.1 of the NER provides for the reopening of a revenue determination to include additional capex, in specified circumstances. The total of the capex under clause 6A.7.1 must exceed 5 per cent of the regulated asset base.

- *Contingent projects (transmission)*

  Clause 6A.8.1 provides that contingent projects may be included in a revenue determination if the proposed capital expenditure exceeds the greater of $10 million or 5 per cent of the value of the maximum allowed revenue for the relevant TNSP for the first year of the relevant regulatory control period, whichever is the larger amount.

4.3.3 Different thresholds for different DNSPs

The AER did not specifically identify different thresholds for the different DNSPs as an issue in its issues paper. However, it has received submissions which have raised this issue and considers it appropriate to assess the benefits of a threshold which varies from one DNSP to another.

The threshold used for the NSW DNSPs was previously set at 1 per cent of the average annual revenue for each business. There is significant variation in the annual revenues between businesses, for example, the threshold for EnergyAustralia is substantially different to Country Energy. A variation in the thresholds, may mean that events which impose the same additional costs onto two DNSPs can only be passed through by one of the DNSPs.

If the threshold were based on costs (and there was no variation between DNSPs), similar events could be passed through by all DNSPs. A uniform threshold based on costs would seem to advantage larger DNSPs who are more able to absorb costs.

Table 1 sets out the revenue from the final year of the 2004-05 to 2008-09 regulatory period. The figures are a guide to the approximate revenue requirements of the DNSPs and will not be used in the final determination. They demonstrate the difference in the sizes of the DNSPs.

The AER considers that materiality depends on the particular circumstances of each business. What is material for one may not be material for another. In considering how to determine materiality, the AER's focus is on events that may affect the financial position of the business. Accordingly, the AER considers that a threshold related to revenue is an appropriate proxy for addressing likely financial impact.

Table 1: Annual smoothed revenue

DNSP	Average annual smoothed revenues (2004-05 to 2008-09)
EnergyAustralia	$947m[a,b]
Integral Energy	$553m[a]
Country Energy	$569m[a]
ActewAGL	$100m[c]

[a] IPART, Final Determination, 2004/05 to 2008/09, p 86. IPART's pass-through, Determination 2, 2004, is not included.
[b] Includes transmission.
[c] ICRC, Prices for electricity distribution services in the ACT, p 88

4.4 Preliminary position

The purpose of the pass through provisions is to allow the regulatory determination to be adjusted to deal with uncertain events that are beyond the control of the DNSP. In the absence of pass through provisions, DNSPs will generally absorb the benefits or costs if the events do occur.

The AER's preliminary position is to adopt a threshold which assesses the revenue impact of the event, which is similar to the current approach adopted in both the ACT and NSW determinations. The AER proposes that if the change in revenue from the event exceeds 1 per cent in any one of the remaining years of the regulatory period, the threshold will be met.

The purpose in adopting an approach which assesses the revenue impact of an event is it considers the ongoing impacts of events which require a mix of capex and opex. Another characteristic of this approach is, in deeming an event material if the revenue impact exceeds 1 per cent in any year, the threshold will allow events to be passed through which have a 'spike' in expenditure in any year. This also brings the approach into line with that included in the transmission rules.

The AER also proposes adopting an alternate approach which considers the proposed total capex compared to the aggregate annual revenue requirement (AARR). If the change in total capex attributable to the event exceeds 5 per cent of the AARR, the event will be deemed material.

The purpose of this approach is to capture events which result in material changes to capex. In addition, a threshold which considers capex as a percentage of the AARR, increases simplicity and does not discriminate against events which occur late in the period.

This approach is similar to the current approach used to determine materiality to include contingent projects in revenue determinations in electricity transmission.

The AER has derived its preliminary position regarding the value of the thresholds after consideration of the balance between the following trade-offs:

- Setting the threshold too low and creating a 'cost-plus' form of regulation – The extreme cost-plus form of regulation would see the businesses approaching the AER and making an excessive quantity of applications. In addition to being contrary to the regulatory framework, it would also place an inappropriate administrative burden on the AER and DNSPs; and
- Setting the threshold too high and excluding events that have a serious impact on the DNSP's financial position – This situation would create considerable uncertainty for the DNSPs and could potentially unfairly disadvantage the DNSPs or customers. If the AER adopted a high threshold there would be an incentive for the businesses to include larger and more uncertain projects in their revenue application.

In summary, the AER's preliminary position is that an event is material if:

1. the revenue impact in any one year exceeds 1 per cent of the respective DNSP's revenue for the first year of the regulatory period; or
2. the proposed capex exceeds 5 per cent of the AARR in the first year of the regulatory period.

Note, the AER will use the PTRM to assess the revenue impact of an event.

4.5 Request for submissions

The AER seeks submissions from stakeholders about its preliminary position on materiality for pass through events for DNSPs in the ACT and NSW for the regulatory control period 2009–2014.

Appendix A IPART's D-factor Guidelines

Note: See attached separate documents.

Glossary

AARR	Aggregate annual revenue requirement
ACCC	Australian Competition and Consumer Commission
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
AR	Allowed revenue
Capex	Capital expenditure
CAPM	capital asset pricing model
CPI	consumer price index
DNSP	distribution network service provider
ESC	essential services commission (Victoria)
ICB	initial capital base
ICRC	independent competition and regulatory commission (ACT)
IPART	independent pricing and regulatory tribunal (NSW)
MAR	maximum allowed revenue
MCE	ministerial council on energy
NEM	national electricity market
NEMCO	national electricity market management company
NER	national electricity rules
NPV	net present value
Opex	operating and maintenance expenditure
Post-tax approach	Approach to calculating regulatory revenue whereby the allowance for taxation is treated as a separate cash flow item
Pre-tax approach	Approach to calculating regulatory revenue whereby the allowance for taxation is embedded in the WACC formula
PTRM	Post-tax revenue model

RAB	Regulated asset base
SCO	Standing Committee of Officials
TNSP	Transmission network service provider
WACC	Weighted average cost of capital