Preliminary positions

Framework and approach paper

Application of schemes

Energex and Ergon Energy 2010–15

June 2008

AUSTRALIAN ENERGY REGULATOR

Request for submissions

Interested parties are invited to make written submissions to the AER on the preliminary positions set out in this paper by close of business 11 August 2008. Submissions can be sent electronically to AERInquiry@aer.gov.au, or written submissions may be sent to:

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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.

Please direct enquiries about the preliminary positions paper or about lodging submissions to the Network Regulation North Branch on (02) 6243 1233 or to the above email address.

Contents

Shortened forms

AER	Australian Energy Regulator
CAIDI	customer average interruption duration index
capex	capital expenditure
DNSP	distribution network service provider
DMIS	demand management incentive scheme
EBSS	efficiency benefit sharing scheme
EDSD	Electricity Distribution and Service Delivery Review
EIC	Electricity Industry Code (Queensland)
Ergon	Ergon Energy Corporation Ltd
GSL	guaranteed service levels
QCA	Queensland Competition Authority
MAIFI	momentary average interruption frequency index
MWh	Megawatt hour
NEL	National Electricity Law
NEMMCO	National Electricity Market Management Company
NER	National Electricity Rules
opex	operating expenditure
SAIDI	system average interruption duration index
SAIFI	system average interruption frequency index
STPIS	service target performance incentive scheme

Summary

The Australian Energy Regulator (AER) is responsible for making for making the first distribution determination under chapter 6 of the NER for each of Energex and Ergon Energy (Ergon), the distribution network service providers (DNSPs) in Queensland. These distribution determinations will commence on 1 July 2010.

In anticipation of every distribution determination, the AER is required to prepare and publish a framework and approach paper. The aim of the framework and approach paper is to assist Energex and Ergon in preparing their regulatory proposals, by setting out the AER's likely approach to:

- the classification of services provided by Energex and Ergon
- application of an service target performance incentive scheme (STPIS)
- application of an efficiency benefit sharing scheme (EBSS)
- application, if applicable, of a demand management incentive scheme (DMIS).

The framework and approach paper must also state the control mechanism that will apply to the direct control services of Energex and Ergon.

The AER must publish its framework and approach paper on the classification of services and control mechanisms by 31 August 2008, and its framework and approach paper on the application of schemes (encompassing the STPIS, EBSS and DMIS) by 30 November 2008.

On 31 March 2008 the AER received proposals from Energex and Ergon relating to the classification of services and control mechanisms for the 2010–15 regulatory control period. The AER's receipt of these proposals initiated consultation on the framework and approach paper for the Queensland DNSPs' classification of services and control mechanisms. The AER is required to publish its final framework and approach—classification of services and control mechanisms by 31 August 2008.

This document sets out the AER's preliminary positions on the matters to be addressed in its framework and approach paper—application of schemes to apply to Energex and Ergon in the 2010-15 regulatory control period. This paper initiates consultation on the AER's framework and approach for the application to Energex and Ergon of an STPIS, EBSS and DMIS.

This paper proposes that an STPIS be applied to Energex and Ergon in as close a form as possible to the AER's national STPIS, published on 26 June 2008. Similarly, this paper proposes that an EBSS be applied to Energex and Ergon in as close a form as possible to the AER's national EBSS, published on 26 June 2008. In applying the national STPIS and EBSS to the Queensland DNSPs, the AER acknowledges the unique conditions to which Energex and Ergon are subject, and the transitional clauses of the National Electricity Rules (NER) that it must take into account in applying the schemes to Energex and Ergon for the 2010–15 regulatory control period. These issues are addressed in the paper.

This paper proposes that the proposed DMIS in the form of a demand management innovation allowance developed for application to Energex, Ergon and ETSA Utilities

over the 2010–15 regulatory control period, be applied to the Queensland DNSPs. The DMIS was published on 30 June 2008.

Submissions are sought from interested parties on the AER's preliminary positions on its application to Energex and Ergon of:

- an STPIS in the form of an s-factor adjustment, consistent with the AER's national distribution STPIS, published on 26 June 2008.
- an EBSS consistent with the AER's national distribution EBSS, published on 26 June 2008
- a DMIS in the form of a demand management innovation allowance, published on 30 June 2008.

1 Introduction

The AER is responsible for the economic regulation of electricity distribution services in the National Electricity Market (NEM). The AER's functions and powers are set out in the National Electricity Law (NEL) and the National Electricity Rules (NER).

The AER is to assume responsibility for the economic regulation of two DNSPs that operate in Queensland:

- Energex—whose network primarily covers urban areas in south east Queensland
- Ergon Energy (Ergon)—whose network covers regional areas throughout Queensland.

Queensland DNSPs are currently subject to economic regulation by the Queensland jurisdictional regulator, the Queensland Competition Authority (QCA). The QCA released a distribution determination in April 2005 for the current regulatory control period—1 July 2005 to 30 June 2010. The QCA remains responsible for administering its 2005 distribution determination.

The AER is responsible for making the first distribution determination for Energex and Ergon, which will commence operation on 1 July 2010. However, the AER commenced the process of making those distribution determinations on 1 April 2008. This process will continue to take place over the final two years of the current regulatory control period.

The AER will make a distribution determination for each of the Queensland DNSPs for the next regulatory control period, 1 July 2010 to 30 June 2015.

1.1 Nature of framework and approach paper

The AER must prepare and publish a framework and approach paper in anticipation of every distribution determination. The AER must commence preparation of and consultation on its framework and approach at least two years prior to the end of the current regulatory period and complete its framework and approach paper 19 months prior to the end of a regulatory period.

The aim of the framework and approach paper is to assist the DNSPs to prepare their regulatory proposals by:

- stating the form (or forms) of the control mechanisms to be applied in the AER's distribution determination and the AER's reasons for applying those control mechanisms
- setting out the AER's likely approach (and its reasons for that likely approach) in the distribution determination to:
    1. the classification of distribution services
    2. the application to the DNSP of a service target performance incentive scheme (STPIS) or schemes

3. the application to the DNSP of an efficiency benefit sharing scheme (EBSS) or schemes
4. the application to the DNSP of a demand management incentive scheme (DMIS) or schemes
5. any other matters on which the AER thinks fit to give an indication of its likely approach.

The AER must apply the control mechanisms set out in its framework and approach paper when making its distribution determination. In all other respects, the framework and approach paper is not binding on the AER or the DNSP. However, where a DNSP's regulatory proposal puts forward an approach different to that set out in the framework and approach paper, the AER will expect to see fully supported arguments explaining the difference in approach, why that approach is considered necessary and how it satisfies the requirements of the NEL and NER.

1.2 Transitional arrangements

The NER sets out the arrangements for distribution regulation in chapter 6, and includes transitional arrangements in chapter 11. Division 3 of chapter 11 sets out transitional arrangements that are to apply to the Queensland DNSPs for the distribution determination that covers the regulatory control period from 1 July 2010 to 30 June 2015.

Due to the transitional arrangements, the framework and approach paper for Energex and Ergon is split into two stages:[1]

1. Framework and approach—classification of services and control mechanisms
2. Framework and approach—application of schemes.

This framework and approach paper sets out the AER's preliminary positions that are to apply to Energex and Ergon for the next regulatory control period, relating to:

- the application of a STPIS
- the application of an EBSS
- the application of a DMIS.

The AER considers that there are no other maters for which it is necessary to give an indication of its likely approach in its upcoming distribution determination.

The AER will publish a separate paper setting out its proposed positions in relation to:

- the classification of services
- the form of control mechanisms to apply to direct control services

for Energex and Ergon over the 2010–15 regulatory control period.

[1] Clause 11.16.6 provides that if either Energex or Ergon submit a proposal to the AER on or before 31 March 2008 on the classification of services and the form of control mechanisms to apply in the next regulatory control period, the AER is required to publish its framework and approach paper on these matters within five months of receiving the proposal. This transitional provision is unique to Queensland. The AER received separate classification of services and control mechanisms proposals from Energex and Ergon on 31 March 2008 and accordingly must publish its framework and approach paper on these matters by 31 August 2008.

The timeline for the AER's framework and approach paper—classification of services and form of control is set out in section 1.4 below.

1.3 Consultation on the framework and approach paper

A framework and approach paper must be prepared in consultation with the relevant DNSP and with other interested parties.

For administrative simplicity the framework and approach process for Energex and Ergon is being considered concurrently. The consultation process has been streamlined to allow for interested parties to provide submissions on the application of schemes to both Energex and Ergon. While this framework and approach paper consolidates information on arrangements and processes, it identifies the AER's distinct framework and approach for each DNSP.

The NER states that the AER must complete and publish its final framework and approach paper on the application of schemes for Energex and Ergon no later than 30 November 2008.[2]

This preliminary position paper is the first step in the AER's consultation on the development of its framework and approach paper on the application of schemes to Energex and Ergon over the 2010–15 regulatory control period:

- Chapter 2 sets out the AER's preliminary position on the application of the STPIS to Energex and Ergon
- Chapter 3 sets out the AER's preliminary position on the application of the EBSS to Energex and Ergon
- Chapter 4 sets out the AER's preliminary position on the application of the proposed DMIS to Energex and Ergon.

The AER seeks submissions on each of the preliminary positions identified in this paper by 11 August 2008. As noted above, consultation on classification of services and control mechanisms for Energex and Ergon is being considered through a separate process.

1.4 Process for making a distribution determination

The procedure to be followed by the AER in making a distribution determination is set out in part E of chapter 6 of the NER.

The transitional rules for Queensland require the AER to split its framework and approach paper for Energex and Ergon into two separate papers. A timeline for this process is provided in table 1.1.

[2] NER, clauses 6.8.1 and 11.16.6

Table 1.1: Procedures for making a distribution determination

1	**AER's framework and approach paper—classification of services and control mechanisms**	
	Energex and Ergon submitted classification of services and control mechanism proposals to the AER	31 March 2008
	AER to publish framework and approach paper—classification of services and control mechanisms for Energex and Ergon	31 August 2008
2	**AER's framework and approach paper—application of schemes**	
	AER to commence preparation of and consultation on framework and approach paper—application of schemes for Energex and Ergon	30 June 2008
	AER to publish framework and approach paper—application of schemes for Energex and Ergon	30 November 2008
3	**Regulatory proposal and distribution determination**	
	Energex and Ergon Energy to submit regulatory proposals to the AER	31 May 2009
	AER to publish draft decision on distribution determination for Energex and Ergon	30 November 2009[3]
	AER to publish final decision and distribution determination for Energex and Ergon	30 April 2010
	Energex and Ergon to submit initial pricing proposal for approval	May 2010[4]
	AER to publish approved pricing proposal	30 June 2010
	Distribution determination and approved pricing proposal commence	1 July 2010

[3] The NER do not prescribe a date that the AER must publish a draft decision on its distribution determination for Energex and Ergon. This date is indicative only.

[4] NER, clause 6.18.2(a)(1)

2 Application of a service target performance incentive scheme

2.1 Introduction

This chapter set outs the AER's likely approach to the application of a service target performance incentive scheme (STPIS) to Energex and Ergon, and its reasons for this approach.

The regulatory framework provides DNSPs with an incentive to reduce costs in order to maximise profits. Cost reductions are beneficial not only to DNSPs but also customers (where service performance is maintained or improved). However, savings that result in lowered service levels for customers are not necessarily desirable. The STPIS seeks to ensure that increased financial efficiency does not result in deterioration of service performance for customers.

The STPIS operates as part of a building block determination. The STPIS provides a financial incentive (through its S-factor component) for DNSPs to maintain and improve service performance by providing penalties or rewards to the DNSP for diminished or improved service compared to predetermined targets. An STPIS may also include a GSL component, which sets threshold levels of service and provides for direct payments to customers that experience service worse than the predetermined level.

2.2 Requirements of the National Electricity Rules

The AER's distribution determinations for Energex and Ergon for the 2010–15 regulatory control period will specify how the STPIS is to be applied to Energex and Ergon in that period.[5] In its framework and approach paper for Energex and Ergon the AER must set out its likely approach, together with its reasons for that approach, to the application of an STPIS in those determinations.[6]

2.2.1 Transitional rules

Clause 6.6.2 of the NER outlines the AER's obligations with respect to the application of an STPIS to DNSPs.[7] Additionally, clause 11.16.5 of the NER contains transitional rules relating to the AER's application of an STPIS in its distribution determinations for Energex and Ergon for the 2010–15 regulatory control period.[8] The transitional rules require that the AER, in formulating an STPIS to apply to Energex and Ergon over the regulatory control period, must:

- take into account the continuing obligations on Energex and Ergon to implement the recommendations of the Electricity Distribution and Service Delivery (EDSD) review, carried out in February 2004

5 NER, clause 6.3.2(a)(3)

6 NER. clause 6.8.1(b)(2)

7 NER, clause 6.6.2

8 NER, clause 11.16.5

- take into account the impact of severe weather on the performance of the Queensland networks
- consider whether the STPIS should be applied as a paper trial, or whether a lower powered incentive is appropriate.

The AER has taken these requirements into account in developing its proposed approach to the application of the STPIS to Energex and Ergon, as addressed in section 2.4.4 of this paper.

2.2.2 AER's distribution STPIS

As part of the new framework for economic regulation of distribution services, the AER is required to develop and publish an incentive scheme, or schemes, to ensure that DNSPs maintain and, where efficient, improve upon agreed levels of service. This scheme is the STPIS.[9]

The STPIS was released on 26 June 2008, and is available on the AER's website, www.aer.gov.au.

2.2.3 Structure of the AER's distribution STPIS

The AER's distribution STPIS has three components, the:

- reliability of supply component
- customer service component
- GSL component.[10]

There is currently no service quality component in the AER's distribution STPIS.

2.2.3.1 S-factor

The reliability of supply and customer service components of the STPIS are collectively known as the S-factor. Application of these components takes the form of a financial reward or penalty, paid or recovered as an annual adjustment to a DNSP's distribution determination. Targets are set for each parameter, and a DNSP is penalised for not meeting a target and rewarded for exceeding a target. The maximum revenue at risk under the S-factor is ± 3 per cent of a DNSP's revenue for each year of the regulatory control period.[11]

Reliability of supply component

Clause 3.1 of the AER's STPIS sets out three parameters for the reliability of supply component:

- Unplanned system average interruption duration index (SAIDI)

9 NER, clause 6.6.2(a)

10 Energex and Ergon are subject to a jurisdictional GSL scheme administered by the QCA, Therefore, in accordance with clause 6.1(a) of the STPIS, the AER's GSL scheme will not apply as part of the STPIS applied to Energex and Ergon.

11 The AER retains discretion to alter this percentage where doing so would achieve the objectives set out in clause 6.6.2 of the NER.

- Unplanned system average interruption frequency index (SAIFI)
- Momentary average interruption frequency index (MAIFI).[12]

Performance targets for these parameters are based on the DNSP's average historical performance over the last five years.[13] For each parameter, targets are set for segments of the DNSP's network, identified, for example, by feeder type. This allows the STPIS to recognise variations in performance across the DNSP's network.

The incentive rates for this component, which determine the amount of any reward or penalty, are based on the value that customers place on supply reliability.

Customer service component

Clause 5.1(a) of the STPIS sets out the four parameters available within the customer service component of the STPIS:

- telephone answering
- streetlight repair
- new connections
- response to written enquiries.

The STPIS requires that the telephone answering parameter be applied to each DNSP under the scheme. One or more of the remaining parameters may apply under the customer service component where application of that parameter is justified under the NER.

Consistent with the reliability of supply component, customer service component parameter performance targets are based on average performance over the last five years. Targets for this component apply to the distribution network as a whole, and are not segmented.

Under the STPIS, an incentive rate is defined as the rate at which a revenue increment or decrement accrues due to a change in service performance. The incentive rate of the telephone answering parameter must be either minus 0.040 or a value determined from an applicable assessment of the value that customers attribute to the level of service proposed.[14]

Reporting requirements

The STPIS requires a DNSP to annually report its performance against all applicable parameters.

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12 SAIFI refers to the sum of the duration of each sustained customer interruption (in minutes) divided by the total number of distribution customers. SAIDI refers to the total number of sustained customer interruptions divided by the total number of distribution customers. MAIFI refers to the total number of customer interruptions of one minute or less, divided by the total number of distribution customers.

13 This data may be adjusted where necessary to account for improvements in reliability which have been included in the DNSPs expenditure program, and may be adjusted for any other material factors expected to affect network reliability performance.

14 AER, *Electricity distribution service providers—Service target performance incentive scheme*, June 2008, clause 5.3.2(a)

2.2.3.2 Guaranteed Service Levels

The purpose of a GSL component is to provide payments to customers if their level of service falls below a predetermined level. The GSL component can operate concurrently with the S-factor component, or may operate as a stand alone jurisdictional scheme. The AER will only apply the GSL component of the STPIS to DNSPs that are not currently subject to a jurisdictional GSL scheme.

2.2.4 Implementing the STPIS

The STPIS developed by the AER and published on 26 June 2008 is designed to facilitate consistent application across the NEM, but can be tailored to the circumstances of each DNSP.

In implementing the STPIS, the AER must take into account the following criteria:[15]

- the need to ensure that benefits to consumers likely to result from the scheme are sufficient to warrant any penalty or reward under the scheme
- any current regulatory requirements to which the relevant DNSP is currently subject
- the past performance of the distribution network
- any other incentives available to the DNSP under the NER or the relevant distribution determination
- the need to ensure that the incentives are sufficient to offset any financial incentives the DNSP may have to reduce costs at the expense of service levels
- the willingness of the customer or end user to pay for improved performance in the delivery of services and
- the possible effects of the scheme on incentives for the implementation of non–network incentives.

The AER must also:

- consult with the authorities responsible for the administration of relevant jurisdictional electricity legislation[16]
- ensure that service standards and service targets (including GSLs) set by the scheme do not put at risk the DNSP's ability to comply with relevant service standards and service targets (including GSLs) as specified in jurisdictional electricity legislation.[17]

The AER's distribution STPIS was developed with regard to these factors. In this way the design of the STPIS itself ensures that its application to Energex and Ergon can be consistent with the criteria in the NER.

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15 NER, clause 6.6.2(3)

16 NER, clause 6.6.2(b)(1)

17 NER, clause 6.6.2(b)(2). The STPIS implemented by the AER must operate concurrently with any average or minimum service standards and GSL schemes that apply to a DNSP under jurisdictional electricity legislation.

In addition to these factors, the transitional rules require that the AER, in formulating an STPIS to apply to Energex and Ergon, must:

- take into account the continuing obligations on DNSPs to implement the recommendations of the EDSD review
- take into account the impact of severe weather on the performance of the Queensland networks
- consider whether the STPIS should be applied as a paper trial, or whether a lower powered incentive is appropriate.

The AER's likely approach to the implementation of the STPIS in Energex's and Ergon's distribution determinations, following consideration of these factors, is explained in the sections below. These criteria are discussed in further detail in section 2.4.4.

2.3 Considerations in applying the STPIS to Energex and Ergon over the 2010–15 regulatory control period

The AER's national STPIS, released on 26 June 2008, was developed with regard to each of the STPIS factors set out in clause 6.6.2 of the NER. The STPIS was developed to apply consistently across all jurisdictions of the NEM where possible. However, flexibility was incorporated into the STPIS to allow for the consideration of differences between jurisdictions and to ensure no disadvantage to DNSPs who have not been previously subject to a service standards framework.

The following sections combine analysis in relation to the application of the AER's STPIS to both Energex and Ergon. The AER considers that there are sufficient similarities in the current arrangements to which the Queensland DNSPs are subject and common issues such that it is appropriate for the AER to consider the application of the STPIS to the DNSPs concurrently at this stage. However, should reasons for differences in the application of the scheme to each DNSP emerge, the AER will consider the scheme's application to Energex and Ergon separately within its final framework and approach paper.

2.3.1 Current arrangements

2.3.1.1 Electricity Distribution and Service Delivery (EDSD) review

During the 2001–05 regulatory control period there was no service standards incentive mechanism in Queensland, however the QCA indicated its intention to consider a mechanism for the 2005–10 regulatory control period.

In February 2004, following a series of widespread and protracted power outages in Queensland, the Queensland Government initiated an independent review of the performance of Queensland's electricity distribution businesses, known as the Electricity Distribution and Service Delivery (EDSD) Review. The review looked at network security issues, associated capital expenditure (capex) and operating expenditure (opex) as well as internal management and communication systems.[18]

[18] QCA Final Determination – Regulation of Electricity Distribution April 2005, p. 19.

The panel conducting the EDSD review noted that the legislative and regulatory provisions (the Electricity Act 1994, the National Electricity Code (now the NER) and the Queensland Competition Act) that applied to the Queensland DNSPs had not been fully utilised to ensure reliability of electricity supply for Queensland consumers.

In relation to service standards, the EDSD review made several recommendations, including that the:

- Queensland Government mandate minimum network service standards for Energex and Ergon to ensure that their capex and opex focuses on the delivery of both service reliability and financial outcomes

- Queensland Competition Authority (QCA) introduce a service quality incentive regime as part of its revenue determination for Energex and Ergon for the 2005–10 regulatory control period.[19]

2.3.1.2 Queensland Electricity Code

Energex and Ergon are required to comply with the Electricity Industry Code (EIC) as a condition of their distribution licences. However there are no financial rewards or penalties imposed for a DNSP's level of compliance with the EIC.

The EIC sets out the minimum service standards that apply to Queensland DNSPs. Energex and Ergon are required to use their 'best endeavours' to ensure they do not exceed targets set for:

- average minutes off supply per customer (equivalent to SAIDI)

- average number of interruptions per customer (equivalent to SAIFI)

- customer average interruption duration index (CAIDI).[20]

The EIC also specifies a GSL scheme that applies to Energex and Ergon. Where a DNSP fails to meet a GSL specified in the EIC, the DNSP must make a payment to the affected customer. GSL payments are payable for events such as wrongful disconnection from the distribution network, delay in connecting or reconnecting customers and poor reliability of supply. GSL payments in any single financial year are capped at $320 per electricity account.

2.3.1.3 QCA's 2005 determination

The QCA did not apply a service standards incentive scheme to Energex and Ergon in its 2005 determination. It considered that, in light of the establishment of the EIC's minimum service standards, tied to the DNSP's distribution licences, Energex and Ergon already had an obligation to improve service standards. The QCA required that Energex and Ergon continue to report against the service performance measures outlined in its 2001 determination.

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19 Detailed report of the Independent Panel: Electricity Distribution and Service Delivery for the 21st Century, Queensland, July 2004. p.57.

20 CAIDI is calculated using reported values for SAIDI and SAIFI.

The EIC's minimum service standards requires Energex and Ergon to report to the QCA on certain reliability standards quarterly (within six weeks of the end of the quarter) and annually (within two months of the end of the year). Energex and Ergon also report quarterly to the QCA on their GSL payments.

The service standards performance measures reported by Energex and Ergon and subsequently published by QCA are:

- reliability data – SAIDI, SAIFI and CAIDI
- quality of supply data – voltage parameters, incidence of interference
- customer service data – call centre performance, appointment punctuality, provision of connections, street light maintenance, GSL payment details and interruptions.

The QCA's 2005 determination stated that during the 2005–10 regulatory control period the QCA would continue to expand its data base by monitoring the quarterly and annual service performance outcomes of Energex and Ergon.[21] Once service standards had been improved to meet the Queensland Government's minimum service standards level, and was consistent with the broad community expectations, the QCA's 2005 determination stated that the QCA would consider implementing a service standards incentive scheme.[22]

2.4 Proposed application of the STPIS to Energex and Ergon over the 2010–15 regulatory control period

2.4.1 S-factor scheme

2.4.1.1 Timing

Clause 2.4 of the AER's STPIS states that if a DNSP's regulatory control period commences on 1 January or 1 July, annual performance must be measured from 1 July until 30 June inclusive. The regulatory control period for Energex and Ergon begins on 1 July 2010, and accordingly the DNSPs will be required to measure performance from that date.

2.4.1.2 Revenue at risk

The AER's national STPIS sets a maximum ±3 per cent of revenue at risk. That is, the maximum amount that a DNSP can be penalised or rewarded under the S-factor component of the STPIS is 3 per cent of its annual revenue for any year of the regulatory control period.[23] Currently there is no service standards incentive mechanism in place in Queensland, and as such there is currently no revenue at risk for Energex and Ergon.

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21 QCA, Final Determination 2005, p. 207.

22 ibid.

23 AER, *Electricity distribution network service providers—Service target performance incentive scheme*, June 2008, clause 2.5

The AER will generally set revenue at risk within its STPIS at 3 per cent for DNSPs. Exceptions to this may be granted where doing so would satisfy the objectives of the scheme.[24]

The incentive rate for the telephone answering parameter within the customer service component of the STPIS has been determined from a willingness to pay study conducted in South Australia by KPMG (2002) and subsequent analysis by the Essential Services Commission of Victoria. A DNSP may propose an alternative incentive rate for the telephone answering parameter. Where an alternative incentive rate is proposed then the value should be determined from an applicable assessment of the value that customers attribute to the level of service proposed.

Incentive rates for other customer service parameters should be based on the value that customers attribute to the level of service proposed. Where this requirement cannot be complied with, a DNSP may propose an alternative methodology for setting an incentive rate consistent with the objectives set out in clause 1.5 of the AER's STPIS.

The AER's preliminary position is to place ±3 per cent of Energex's and Ergon's respective revenues at risk under the STPIS. The targets and incentive rates applied under the STPIS, which are based on the VCR, will ensure that the amount of any reward or penalty paid under the STPIS will be proportionate to the value customers place on the associated change in performance levels according to available economic studies.

2.4.1.3 STPIS as applied within a control mechanism

The AER's STPIS explanatory statement states that:

> The AER will outline how it will incorporate the S-factor into the form of control mechanism for standard direct control services for each DNSP through the framework and approach process.[25]

The AER has not yet determined its proposed position on the form of control to apply to Energex and Ergon over the 2010–15 regulatory control period. As such, the AER will outline how the S-factor will be incorporated into the form of control in its framework and approach paper on the classification of services and control mechanisms. The timetable for the AER's framework and approach paper for classification of services and control mechanisms is set out in section 1.4.

2.4.2 S-factor

The S-factor component of the STPIS contains two components:

- reliability of supply
- customer service component

There is currently no quality of supply component within the AER's STPIS.

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24 AER, *Electricity distribution network service providers—Service target performance incentive scheme*, June 2008, clause 1.5

25 AER, *Final decision—Electricity distribution network service providers—Service target performance incentive scheme*, June 2008, p. 25.

2.4.2.1 Reliability of supply component

Parameters

The AER's STPIS allows for the potential inclusion of unplanned SAIFI, unplanned SAIDI and MAIFI.

Energex and Ergon have been monitoring and reporting on SAIDI and SAIFI to the QCA in accordance with the minimum service standards requirement of the EIC since the September 2002 quarter. The minimum service standards targets within the EIC are based on the average number and length of electricity outages considered reasonable for Queensland's electricity distribution networks.[26] The targets are based on the past performance of Energex and Ergon and DNSPs in NSW and Victoria.[27] The targets represent an improvement in reliability of approximately 25 per cent over the current regulatory period.[28]

The AER considers that sufficient historical data is available to set future targets for unplanned SAIDI and unplanned SAIFI.

The third reliability of supply index, MAIFI, requires DNSPs to measure momentary interruptions, being interruptions of one minute or less. Given the widespread nature of the Queensland distribution networks, the AER understands that Energex and Ergon do not have the data gathering capacity to measure momentary interruptions. Clause 3.1(f) of the AER's STPIS states that where a DNSP demonstrates that it is unable to measure MAIFI, the DNSP may propose a variation to exclude MAIFI during the regulatory control period.

The AER's preliminary position is not to apply the MAIFI parameter of the S-factor to Energex and Ergon during the 2010–15 regulatory control period.

Clause 3.1 of the AER's STPIS provides that a DNSP's network shall be segmented according to network type, or alternatively, by any other method that meets the objectives of the STPIS. For the purposes of reporting against unplanned SAIDI and unplanned SAIFI, Energex's network is currently categorised within the EIC into the following feeder types:

- CBD
- Urban
- Short rural.

Ergon's network is currently categorised within the EIC into the following feeder types:

- Urban
- Short rural

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26 Queensland Department of Mines and Energy, *Service Standards Fact Sheet*, http://www.dme.qld.gov.au/zone_files/Electricity/service_standards_factsheet.pdf, accessed 27 May 2008

27 ibid.

28 ibid.

- Long rural.

The AER intends to measure reliability of supply for Energex and Ergon based on the existing segmentations for each DNSP.

Performance targets

Clause 3.2.1(a) of the AER's STPIS provides that performance targets for each parameter are to be based on an assessment of average performance over the past five years. The performance data may be modified in accordance with clause 3.2.1(a)(1) and/or (2) of the STPIS to reflect improvements that have affected (or will affect) service reliability or any other factors that materially affect network reliability performance. Any modifications to performance data made in accordance with clause 3.2.1 of the STPIS must be accompanied by appropriate justification and explanation when submitted by a DNSP. Targets for each applicable parameter, and each segment to which the parameter applied, will be set on this basis in the distribution determination.

The AER's proposed approach for setting targets for parameters is based on the relevant clauses of the STPIS.[29] Where Energex or Ergon considers that five years of data is not available, or is not sufficiently accurate, the parameter is not automatically excluded from the STPIS. In this situation, the AER may approve alternative benchmarks in accordance with clause 3.2.1(c) of the STPIS.

The AER intends to maintain the division of feeder types for the purposes of setting unplanned SAIDI and unplanned SAIFI targets. The AER expects that targets will be proposed by Energex and Ergon for unplanned SAIDI and unplanned SAIFI based on an assessment of average historical performance over the last five years for these feeder types, and where this is not appropriate or possible Energex and Ergon will propose alternative benchmarks or methodologies for setting targets.

Incentive rates

Clause 3.2.2(a) of the AER's STPIS specifies that incentive rates must be based on the value that customers place on supply reliability, referred to as the value of customer reliability (VCR).

Energex and Ergon, in their regulatory proposals, will be required to propose incentive rates in accordance with the methodology set out in the STPIS, but may elect to propose an alternative VCR.[30] Should Energex or Ergon elect to do this, they must provide the AER with the methodology used to calculate the value and research supporting its calculation.

Incentive rates will be calculated at the commencement of the regulatory control period (in the distribution determinations) and will apply for the duration of the regulatory control period.

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29 AER, *Electricity distribution network service providers—Service target performance incentive scheme*, June 2008 clauses 3.2.1 and 3.2.2

30 AER, *Electricity distribution network service providers—Service target performance incentive scheme*, June 2008, clauses 3.2.2(h), 3.2.2(i) and 3.2.2(j)

Exclusions

For unplanned SAIFI and unplanned SAIDI, sustained interruptions caused by transmission or generation failures are excluded from the STPIS. The AER proposes the following exclusions, contained in clause 3.3 of the AER's STPIS, be applied to Energex and Ergon over the regulatory control period:

- any day (midnight to midnight) where unplanned SAIDI for the electricity distribution network exceeds the major event day threshold as set out in appendix D of the STPIS
- load shedding due to a generation shortfall
- automatic load shedding due to the operation of under frequency relays following the occurrence of a power system under-frequency condition
- load shedding at the direction of the National Electricity Market Management Company (NEMMCO) or a system operator
- load interruptions caused by a failure of the shared transmission network
- load interruptions caused by a failure of transmission connection assets except where the interruptions were due to inadequate planning of transmission connections and the DNSP is responsible for transmission connection planning
- load interruptions caused by the exercise of any obligation, right or discretion imposed upon or provided for under jurisdictional electricity legislation or national electricity legislation applying to a DNSP.

These exclusions aim to encompass the most likely causes of interruptions or load shedding which are beyond a DNSP's control.

2.4.2.2 Customer service component

Parameters

Clause 5.1(b) of the AER's STPIS provides the customer service component for a DNSP will include a telephone answering parameter, unless the AER determines otherwise in its distribution determination for that DNSP. The telephone answering parameter is defined in appendix A of the STPIS as:

> Calls to the fault line answered in 30 seconds where the time to answer a call is measured from when the call entered the telephone system of the call centre (including that time when it may be ringing unanswered by any response) and the caller speaks with a human operator, but excluding the time that the caller is connected to an automated service that provides substantive information.[31]

The STPIS provides that Energex or Ergon may, in their regulatory proposals, propose one or more of the following parameters to apply for the regulatory control period:

- streetlight repair

[31] AER, *Electricity distribution network service providers—Service target performance incentive scheme*, June 2008, appendix A

- new connections
- response to written enquiries.[32]

Energex and Ergon currently report to the QCA quarterly and annually on network call centre performance, streetlight repair and new connections. Once the AER assumes responsibility for setting Queensland DNSPs' revenues, Energex and Ergon will no longer be required to report against network call centre performance, streetlight repair and new connections (although the Queensland jurisdictional GSL includes network connections).

The AER's preliminary position is to apply the telephone answering parameter as outlined in its STPIS, and not to apply the remaining three parameters. However, it is noted that the inclusion of the remaining three parameters may be proposed by Energex or Ergon as part of their regulatory proposals, or may be included within the AER's determinations for Energex and/or Ergon if the AER later considers these parameters would satisfy the objectives of the STPIS.

Revenue at risk

The STPIS states that the maximum revenue at risk for all customer service parameters within the customer service component will be 1 per cent of revenue for each regulatory year of the regulatory control period.[33] The maximum revenue at risk for any individual customer service parameter is 0.5 per cent of revenue for each year of the regulatory control period.

By proposing to apply the telephone answering parameter and not the remaining four parameters of the customer service component of the STPIS, the AER is proposing that the maximum revenue at risk for the customer service component of the STPIS is 0.5 per cent of Energex's and Ergon's revenues.

Performance targets

Clause 5.3.1(a) of the AER's STPIS provides that performance targets for each customer service performance parameter are to be based on average performance over the past five financial years or other measurement period as described in clause 2.4(a) of the STPIS. As noted above, these targets only apply to the network as a whole rather than to network segments. Any modifications to performance data proposed for the purposes of setting targets must be accompanied by appropriate justification in a DNSP's regulatory proposal.

Energex and Ergon have been monitoring and reporting on call centre performance under reporting requirements within the QCA's 2005 determination, including reporting on the average waiting time for a customer to speak to an operator. The AER considers that Energex and Ergon are likely to have the relevant historical data required to set targets for the telephone answering parameter of the STPIS in the forthcoming regulatory control period. Any other customer service parameters

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32 These same parameters are also included in the GSL component of the STPIS. However if the AER does not apply the GSL component of the STPIS, and if the streetlight repairs, new connections, and response to written enquiries are not included in the customer service component of the STPIS, there will be no financial incentive tied to these parameters over the 2010–15 regulatory control period.

33 AER, Electricity distribution network service providers—Service target performance incentive scheme, June 2008, clause 2.5(a)

proposed by Energex or Ergon in their regulatory proposals should be accompanied by proposed targets.

Incentive rate

Under the STPIS, an incentive rate is defined as the rate at which a revenue increment or decrement accrues due to a change in service performance. The incentive rate for the telephone answering parameter is minus 0.040. For other customer service parameters proposed by Energex or Ergon, the appropriate incentive rates should be based on the value that customers attribute to the level of service proposed.

Incentive rates will be calculated at the commencement of the regulatory control period (in the distribution determination) and will apply for the duration of the regulatory control period.

Exclusions

Clause 5.4(a) of the AER's STPIS provides that:

> Where the impact of an event is allowed to be excluded from the calculation of a revenue increment or decrement under the' reliability of supply' component as provided for in clause 3.3, the impact of that event may be excluded from the calculation of a revenue increment or decrement for the 'telephone answering' *parameter* as appropriate.

Where Energex or Ergon proposes other customer service parameters to apply, it may also propose appropriate exclusions for these parameters.

2.4.2.3 Quality of supply

Energex and Ergon are currently required to report on specific service quality measures under the QCA's service quality reporting guidelines.[34] They DNSPs are required to report on the number of complaints received regarding the technical quality of supply (such as high or low voltage levels, voltage waveform distortion and radio/appliance interference) and the average time taken to rectify a technical supply fault. Recent performance reports indicate that technical quality of supply complaints for Energex and Ergon are at record lows, however, the time taken to fix faults increased in the December 2007 quarter.[35]

The AER's STPIS does not include quality of supply parameters. However, as Energex and Ergon have been collecting data on quality of supply over the 2005–10 regulatory period, the AER's preliminary position is to continue to require the DNSPs to collect and report on these parameters over the 2010–15 regulatory control period. No targets will be assigned to those parameters, and no revenue will be placed at risk.

The AER considers that there is value in Energex and Ergon continuing to collect and report on this data should the STPIS be amended in the future to include quality of supply parameters.

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34 QCA, *Electricity Distribution: Service Quality Reporting Guidelines Version 2.0*, August 2005

35 QCA Service Quality Report – December Quarter 2007, p. 7.

2.4.3 GSL scheme

The Queensland EIC requires Energex and Ergon to comply with a state legislated GSL scheme. The scheme includes parameters for customer connection to the distribution network, maintenance of hot water supply, appointment punctuality, planned interruptions and feeder reliability.

The AER's STPIS states that where jurisdictional electricity legislation imposes an obligation on a DNSP to operate a GSL scheme, the AER's GSL component will not apply. Therefore, the AER's preliminary position is that the AER's GSL component of the STPIS should not apply to Energex or Ergon.

2.4.4 Consideration of NER criteria

2.4.4.1 The need to ensure that benefits to consumers likely to result from the scheme are sufficient to warrant any penalty or reward under the scheme

Incentive rates for reliability parameters under the s-factor scheme are set on the basis of the latest available economic study of VCR, which estimates the value of service reliability as value per kilowatt hour of lost load for supply interruptions.[36] Weightings for each parameter are also based on the value that customers place on them. The incentive rate for the telephone answering parameter is based on the results of a customer willingness to pay survey undertaken in South Australia by KPMG and subsequent analysis by Essential Service Commission of Victoria. Therefore, the potential penalty or reward available to Energex and Ergon under the STPIS reflects the potential benefit to consumers, and how they value performance under the parameter in question, according to the latest available economic studies.

2.4.4.2 Any current regulatory requirements to which the relevant DNSP is currently subject

Energex and Ergon are required to comply with the EIC as a condition of their distribution licences. The EIC sets out the minimum service standards that apply to Energex and Ergon. The STPIS administered by the AER will be implemented to operate concurrently with these obligations. The AER notes that in setting the appropriate service standards targets within the STPIS, the AER will take into account the minimum service standards that apply to Energex and Ergon. However, the AER will not set the targets for the STPIS at levels that are below the current minimum service levels established by the QCA.

Energex and Ergon are also subject to a jurisdictional GSL scheme. To avoid unnecessary duplication of regulatory obligations, the AER will not apply its own GSL scheme to Energex or Ergon while the jurisdictional scheme remains in place.

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[36] The scheme draws on the most recent study of VCR available (CRA, 2002, *Assessment of the Value of Customer Reliability* – report prepared for VENCorp, Melbourne), and its application in the ESCV's 2005-10 electricity distribution determination, in setting a default VCR to be applied under the scheme. A discussion of the VCR applied within the STPIS is provided in the AER's *Explanatory Statement and discussion paper: Proposed electricity distribution network service providers service target performance incentive scheme*, April 2008, p.20. The STPIS permits DNSPs to propose different values where new analysis is available.

2.4.4.3 The past performance of the distribution network

The STPIS provides that targets for the reliability and customer service components of the S-factor are to be set based on the average performance of a DNSP's network over the last five years, subject to adjustments required to reflect changes in circumstance from period to period. This means that the AER will consider the past performance of the relevant section of Energex's and Ergon's networks when setting targets so as not to set unduly high or low targets. In establishing these targets, expectations on the basis of past performance will be modified to take into account reliability improvements completed or planned, where these are included in Energex's or Ergon's approved forecast capex for the 2010-15 regulatory control period, or approved in the capex allowed under the 2005 QCA determination, where these are expected to result in material improvements in supply. Targets may also be modified if other factors are identified that are expected to materially affect network reliability performance.

2.4.4.4 Any other incentives available to the DNSP under the NER or the relevant distribution determination

The other incentive schemes applicable to Energex and Ergon as part of the AER's distribution determinations are the efficiency benefit sharing scheme (EBSS) and demand management incentive scheme (DMIS).

The STPIS works as a 'counterbalance' to EBSS, which creates incentives to realise operational efficiency gains. The STPIS serves to maintain or, where efficient, improve service levels (where customers are willing to pay for improved service) so that the incentive to minimise opex does not result in lower levels of service for customers.

The STPIS does not necessarily conflict with the DMIS. The STPIS is essentially neutral regarding the level of reliability of network and non-network solutions, that is, neither encouraging nor discouraging non-network alternatives to augmentation. The AER considers that if the effects of non-network alternatives on reliability (such as demand side response) were excluded under the STPIS, this would effectively pass on the risk of these mechanisms on reliability to customers rather than to the DNSP. This means the STPIS would not have a neutral impact on whether a demand side response should be used.

2.4.4.5 The need to ensure that the incentives are sufficient to offset any financial incentives the DNSP may have to reduce costs at the expense of service levels

The STPIS both penalises a DNSP for deteriorating service, and rewards it for efficient improvements in service. These penalties and rewards take the form of negative and positive adjustments to annual revenue, so that the revenue earned by a DNSP is tied to the level of service it actually provides. Any incentive to reduce costs at the expense of service levels is counterbalanced by the corresponding penalties under the STPIS.

2.4.4.6 The willingness of the customer or end user to pay for improved performance in the delivery of services

The willingness of customers to pay for improved levels of service is factored into the incentive rates for each component. These incentive rates reflect the VCR, so that the weighting attached to each parameter, and therefore the amount of any reward or

penalty, reflects the value customers place on it. By segmenting the network for the purposes of determining targets for the reliability of supply component of the STPIS, the AER is able to set targets, and distribute revenue at risk (and therefore the amount of any reward or penalty available), in a way that reflects customers' priorities and their willingness to pay for improvements.

2.4.4.7 The possible effects of the scheme on incentives for the implementation of non-network alternatives

The STPIS encourages a DNSP to maintain and improve service levels. The incentive created by the AER's proposed demand management incentive scheme (DMIS) is for a DNSP to implement innovative and/or broad–based demand management that can result in improved network utilisation. The STPIS does not necessarily counter the incentives created by the DMIS.

The AER is aware of the perceived disincentive to implement non-network alternatives to network augmentation created by the reliability performance measures in its STPIS, such that incentives to undertake demand side management may be diminished in the absence of an adjustment to targets or an exclusion to recognise what is seen as a greater risk that targets will not be met. The AER considers, however, that the risk associated with non-network alternatives is better placed with a DNSP than its customers. The AER considers that where aspects of performance are within a DNSP's control, the associated risk should also lie with the DNSP.

2.4.4.8 The continuing obligations on Energex and Ergon throughout the regulatory control period to implement the recommendations from the EDSD Review adopted by the Queensland Government [37]

In response to a series of power outages in Queensland in 2004, the EDSD review recommended that the Queensland Government mandate minimum service standards for Energex and Ergon. The EDSD review also recommended that the QCA introduce a service quality incentive regime for Energex and Ergon.[38]

The AER considers that the application of the STPIS is consistent with the EDSD review recommendations. The AER does not consider that applying an STPIS to Energex and Ergon would place unreasonable obligations on the DNSPs.

2.4.4.9 The impact of severe weather events on service performance [39]

The AER has taken account of the impact of severe weather events within the development of its STPIS. The STPIS excludes any day (midnight to midnight), where daily SAIDI exceeds the major event day threshold, as set out in appendix D of the STPIS.[40]

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37 NER, clause 11.16.5(1)

38 Detailed report of the Independent Panel: Electricity Distribution and Service Delivery for the 21st Century, Queensland, July 2004. p.57.

39 NER, clause 11.16.5(2)

40 The STPIS defines a major event day as it is defined in the Institute of Electrical and Electronics Engineers (IEEE) standard 1366-2003. AER, *Electricity distribution network service providers—Service target performance incentive scheme*, June 2008, Appendix D, p. 30.

2.4.4.10 Whether the scheme should be applied by way of a paper trial or whether a lower powered incentive is appropriate [41]

The AER has considered whether the application of a paper trial, as a 'soft start' basis for the STPIS with reduced revenue at risk, should be applied in the 2010–15 regulatory control period to assist the Queensland DNSPs in the transition process.

The AER notes that the application of its distribution STPIS is consistent with the recommendations of the EDSD review, and follows more than five years of Energex and Ergon reporting to the QCA on service standards parameters. The AER considers that it is an appropriate time for the AER to apply a financial STPIS to the Queensland DNSPs. The AER notes that the service standards reporting requirements within the current regulatory period could effectively be considered to have been a paper trial, and the 2010–15 regulatory control period may be an appropriate time to move to a scheme with a financial incentive. The AER considers that Energex and Ergon are in a position to participate in a financial service standards incentive scheme such as the AER's STPIS, as they have been reporting against service standards parameters over the current regulatory period.

The AER has considered whether the revenue at risk under the STPIS should be lowered for its application to Energex and Ergon. The AER considers that it is appropriate to apply the STPIS to the Queensland DNSPs in a form as close as possible to the national STPIS, unless Energex or Ergon raises relevant reasons why this should not be the case. The AER will consult with interested parties on the appropriate revenue at risk under the STPIS prior to publishing its final framework and approach paper.

2.4.5 AER's preliminary position on the application of the STPIS to Energex

The AER's approach to Energex's STPIS will follow the AER's STPIS where appropriate.

For reliability of supply, unplanned SAIDI and unplanned SAIFI parameters will apply to Energex. Targets will be set by reference to historical data and the minimum service levels established by the QCA. Incentive rates will be set in accordance with clause 3.2.2 of the AER's STPIS. MAIFI will not apply to Energex.

Within the customer service component, the AER proposes that telephone answering (as defined in appendix A of the STPIS) will apply to Energex for the forthcoming regulatory control period. Other parameters under this component may be proposed by Energex in its regulatory proposal.

A quality of supply component will not apply to Energex for the forthcoming regulatory control period. However, the AER will require Energex to continue to report on the quality of supply parameters that it has reported on over the 2005–10 regulatory period.

The AER will not apply a GSL component to Energex for the 2010–15 regulatory control period.

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41 NER clause 11.16.5(3)

2.4.6 AER's preliminary position on the application of the STPIS to Ergon

The AER's approach to Ergon's STPIS will follow the AER's STPIS where appropriate.

For reliability of supply, unplanned SAIDI and unplanned SAIFI parameters will apply to Ergon. Targets will be set by reference to historical data and the minimum service levels established by the QCA. Incentive rates will be set in accordance with clause 3.2.2 of the AER's STPIS. MAIFI will not apply to Ergon.

Within the customer service component, the AER proposes that telephone answering (as defined in appendix A of the STPIS) will apply to Ergon for the forthcoming regulatory control period. Other parameters under this component may be proposed by Ergon in its regulatory proposal.

A quality of supply component will not apply to Ergon for the forthcoming regulatory control period. However, the AER will require Ergon to continue to report on the quality of supply parameters that it has reported on over the 2005–10 regulatory period.

The AER will not apply a GSL component to Ergon for the 2010–15 regulatory control period.

3 Application of an efficiency benefit sharing scheme

3.1 Introduction

The AER's distribution determinations for Energex and Ergon for the 2010–15 regulatory control period must specify how any applicable EBSS will apply to Energex and Ergon.[42]

This chapter sets out the AER's likely approach to the application of the AER's distribution EBSS to Energex and Ergon, and its reasons for this approach.

An EBSS provides for a fair sharing of efficiency gains and losses between DNSPs and their customers. These gains and losses result from underspends or overspends in the DNSPs' opex for a regulatory period.

In the absence of an EBSS, the natural incentive for DNSPs is to realise efficiency gains early in the regulatory control period, as they can only retain the benefit from these for the remainder of the regulatory control period. Firms may also have a natural incentive to increase their actual opex in the third or fourth year of the regulatory control period (beyond the efficient level) as amounts from these years are typically the basis of opex forecasts for the forthcoming regulatory period. The combined effect of this is that the incentive for DNSPs to improve the efficiency of their opex declines throughout the regulatory control period, and consequently the incentive for DNSPs to improve the efficiency of their opex declines as well. One of the objectives of the EBSS is to create a continuous incentive for DNSPs to find economically efficient ways to reduce their opex in every year of the regulatory control period.

3.2 Requirements of the National Electricity Rules

The AER's distribution determinations for Energex and Ergon for the 2010–15 regulatory control period will specify how an EBSS is to be applied to Energex and Ergon in that period.[43] In its framework and approach paper, the AER must set out its likely approach, and its reasons for that approach, to the application of an EBSS in those determinations.[44]

3.2.1 Transitional rules

Clause 6.5.8 of the NER sets out the AER's obligations with respect to the distribution EBSS.[45] Additionally, clause 11.16.4 of the NER contains transitional rules relating to the AER's application of an EBSS in its distribution determinations for Energex and Ergon for the 2010–15 regulatory control period.[46] The transitional rules require that an EBSS to apply to Energex and Ergon must not cover efficiency gains and losses relating to capex. The transitional rules also require that the AER, in

42 NER, clause 6.3.2(a)(3)

43 NER, clause 6.3.2(a)(3)

44 NER, clause 6.8.1(b)(3)

45 NER, clause 6.5.8

46 NER, clause 11.16.4

formulating an EBSS to apply to Energex and Ergon over the regulatory control period, must have regard to the continuing obligations on the DNSPs to implement the recommendations of the EDSD review adopted by the Queensland government.[47]

The AER has taken these factors into account in developing its proposed approach to the application of an EBSS to Energex and Ergon, as addressed in section 3.3.2 of this paper.

3.2.2 AER's distribution EBSS

As part of the framework for economic regulation of distribution services, the AER is required to develop and publish a scheme or schemes (the efficiency benefit sharing scheme, or EBSS) that provide for a fair sharing between DNSPs and users of:

- the efficiency gains derived from the opex of DNSPs for a regulatory control period being less than; and
- the efficiency losses derived from the opex of DNSPs for a regulatory control period being more than,

the forecast opex approved or substituted by the AER for that regulatory control period.[48]

The AER's EBSS was published on 26 June 2008, and is available on the AER's website at www.aer.gov.au.

The EBSS has been designed to provide an incentive for a DNSP to reveal its efficient level of expenditure through the retention of efficiency gains for five years after the year in which the gain is made. The scheme calculates revenue increments or decrements derived from the difference between a DNSP's actual opex and the forecast opex approved in its building block determination. It is these increments or decrements that provide for the fair sharing of gains and losses between a DNSP and network users.

The EBSS is symmetrical in nature. It allows a DNSP to retain the benefits of an efficiency gain, or bear the costs of an efficiency loss, for the length of the carryover period, regardless of which year of the regulatory control period in which the gain/loss was realised.

The nominal five–year carryover period assumed in the AER's EBSS results in a benefit sharing ratio of approximately 30:70 between DNSP's and their customers.[49] This means that a DNSP will retain 30 per cent of the benefits of efficiency gains and customers will retain 70 per cent.

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47 ibid.

48 NER, clause 6.5.8(a)

49 The EBSS assumes a nominal carryover period of five years, but allows a longer carryover period where the regulatory control period covered by the relevant distribution determination is longer than five years. The carryover period will not exceed 10 years. A 10-year carryover period results in a sharing ration of approximately 50:50.

Carryover amounts are included as a building block element in the calculation of allowed revenue for the regulatory period following the regulatory period in which the EBSS was applied.

3.2.3 Implementing the EBSS

In implementing the EBSS, the AER must have regard to:

- the need to ensure that benefits to consumers likely to result from the EBSS are sufficient to warrant any reward or penalty under the scheme for DNSPs
- the need to provide DNSPs with a continuous incentive, so far as is consistent with economic efficiency, to reduce opex
- the desirability of both rewarding DNSPs for efficiency gains and penalising DNSPs for efficiency losses
- any incentives the DNSP may have to capitalise expenditure
- the possible effects of the scheme on incentives for the implementation of non–network alternatives.[50]

The AER's distribution EBSS was developed with regard to these same considerations.

In addition, the Queensland transitional rules require that:[51]

- an EBSS to apply to Energex and Ergon must not cover efficiency gains and losses relating to capex
- in formulating an EBSS to apply to Energex and Ergon over the regulatory control period, the AER must have regard to the continuing obligations on the DNSPs to implement the recommendations of the EDSD review adopted by the Queensland Government.

The AER's likely approach to the implementation of the EBSS in Energex's and Ergon's distribution determinations is set out in the sections below.

3.3 Application of the EBSS to Energex and Ergon over the 2010–15 regulatory control period

The AER has developed its EBSS in accordance with the requirements of the NER, which it intends to apply to Energex and Ergon in the 2010–15 regulatory control period. The EBSS was developed with regard to the criteria contained in clause 6.5.8(c) of the NER. The AER must also have regard to these criteria in applying the EBSS to Energex and Ergon. In this way, the design of the EBSS will itself ensure that its application to Energex and Ergon (and other DNSPs) is consistent with the criteria established under the NER.

The following sections combine analysis in relation to the application of the AER's distribution EBSS to both Energex and Ergon. The AER considers that there are

50 NER, clause 6.5.8(c)

51 NER, clause 11.16.4

sufficient similarities in the current arrangements to which the Queensland DNSPs are subject and common issues such that it is appropriate for the AER to consider the application of the EBSS to the DNSPs concurrently at this stage. However, should reasons for differences in the application of the scheme to each DNSP emerge, the AER will consider the scheme's application to Energex and Ergon separately within its final framework and approach paper.

3.3.1 Background and operating environment

3.3.1.1 Opex and the 2004 EDSD review

As mentioned in section 2.3.1.1, in February 2004 the Queensland government initiated an independent review of the performance of Queensland's DNSPs, known as the EDSD Review. The review looked at network security issues, associated capex and opex as well as internal management and communication systems.[52]

The independent panel that conducted the EDSD review found that both Energex's and Ergon's maintenance expenditure had been inadequate in the years prior to 2004.

Accordingly, the EDSD review panel recommended appropriate service standards be put in place for the 2005–10 regulatory control period.

3.3.1.2 QCA's 2005 determination

In determining Energex's forecast opex for the 2005–10 regulatory control period, the QCA deducted $87.2 million (in net present value terms) from Energex's future revenue, which was an estimate of Energex's underspend of the 2001 decision opex allowance. The decision to deduct this underspend from Energex's revenue was made on the basis of an assessment by the EDSD review panel that Energex had focussed too much on the financial bottom line at the expense of its system performance.[53] The QCA expressed concern that allowing Energex an opex allowance in its 2005 determination to cover expenses that were provided for in the 2001 determination but were not carried out would result in customers paying twice for the same expenditure. The QCA stated that this was an unacceptable outcome, made even more so by the fact that Energex customers had experienced no discernable increase in service quality over the period.[54]

Table 3.1, taken from the QCA's 2005 determination, illustrates Energex's opex outturn over the 2001–05 regulatory period:

52 QCA *Final Determination – Regulation of Electricity Distribution* April 2005, p. 19.

53 QCA Final Determination – Regulation of Electricity Distribution April 2005, p. 158.

54 ibid., p. 147.

Table 3.1: Energex's forecast and actual opex, 2001–05

	2001-02	*2002-03*	*2003-04*	*2004-05*	*Total*
Forecast[1]	161.7	171.8	179.3	187.2	700.0
Actual[2]	138.4	132.7	143.4	168.0	582.5
Balance	**(23.3)**	**(39.1)**	**(35.9)**	**(19.2)**	**(117.5)**

[1] *QCA (2001c) adjusted for the approved cost passthroughs of the Electrical Safety Office levy and theQueensland Competition Authority levy.*

[2] *From Energex Regulatory Accounts, except for 2004-05, which is an estimate. Values have been adjusted to reflect opex capitalised during the period.*

Source: QCA Final Determination 2005, p. 139

Table 3.2 illustrates forecast and actual opex for Ergon over the 2001–05 regulatory period:

Table 3.2: Ergon's forecast and actual opex, 2001–05

	2001-02	*2002-03*	*2003-04*	*2004-05*	*Total*
Forecast[1]	150.9	156.3	159.8	163.8	630.8
Actual[2]	135.0	159.0	189.5	184.6	668.1
Balance	**(15.9)**	**2.7**	**29.7**	**20.8**	**37.3**

[1] *QCA (2001c) adjusted for the approved cost passthroughs of the Electrical Safety Office levy and the Queensland Competition Authority levy.*

[2] *From Ergon's Regulatory Accounts, except for 2004-05 which is an estimate.*

Source: QCA Final Determination 2005, p. 139

3.3.1.3 Opex in the current regulatory period

Energex's *Annual Network Management Plan 2007–08 to 2011–12* reports an increase in opex in 2006–07 from that carried out 2005–06.[55] The plan indicates that Energex's opex for the period 2007–08 to 2009–10 is in line with the QCA's 2005 determination, except for infrastructure projects which are the subject of a pass through application to the QCA.[56]

Ergon's *Network Management Plan 2007–08 to 2011–12* reports satisfactory progress in the majority of its 2006–07 maintenance activities.[57] Ergon's five year opex forecast (2006–07 to 2011–12) indicates that annual opex for the remainder of the regulatory control period will be greater than that determined in the QCA's 2005 determination.[58]

55 Energex, *Annual Network Management Plan – 2007/08 to 2001/12*, 16 August 2007, p. 10.

56 ibid., p. 75.

57 Ergon Energy, *Network Management Plan- Part A: Electricity Supply for Regional Queensland 2007/08 to 2011/12*, p.13.

58 ibid., p. 97. Average opex between 2005–10 for Ergon Energy was forecast to be $247 million per annum in the QCA's determination, however the Annual Network Management Plan 2007–08 predicts annual opex over the remainder of the period to average $290 million.

Table 3.3 illustrates Energex's and Ergon's forecast and actual opex for the first two years of the current regulatory period.

Table 3.3: Forecast and actual opex ($m, nominal), 2005–07

	Forecast 2005–06	Actual 2005–06	Forecast 2006–07	Actual 2006–07
Energex	$225.9	$234.2	$270.5m	$274.5m
Ergon	$266.7	$283.7	$279.6m	$292.5m

Source: QCA, *Financial and Service Quality Performance 2005–06* and *2006–07 (*Energex) and QCA, *Financial and Service Quality Performance 2005–06* and *2006–07 (*Ergon)

3.3.2 Consideration of NER criteria

As noted above, the AER must have regard to a number of factors in implementing the EBSS. These are discussed in turn below. Recognition of these factors in the development of the EBSS itself is discussed in more detail in the AER's explanatory statement on the EBSS, released on 26 June 2008. This document is available on the AER's website, www.aer.gov.au.

3.3.2.1 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

In developing the EBSS, the AER selected a five year carryover period for the scheme (the length of the regulatory control period). This results in a sharing ratio between customers and DNSPs of 70:30. That is, where an efficiency is realised and a subsequent opex underspend occurs, 70 per cent of this underspend amount will be returned to customers via lower prices in the following regulatory period. This occurs over a five year period from the year the efficiency was made, which may extend into the following regulatory control period (if the efficiency was realised in year two or after).

Due to the symmetrical nature of the scheme, whilst a DNSP must share the benefits of its efficiency gains, the costs of its efficiency losses are also borne by consumers via price increases. The risk that customers incur higher prices due to efficiency losses is mitigated by the continuous incentive for DNSPs to strive for efficiency gains created by the EBSS.

The EBSS provides greater certainty to DNSPs on how actual opex will be used to set forecasts in future periods. Without an EBSS the incentive to improve efficiency decreases as the period progresses, and there can be uncertainty as to how opex will be forecast in future regulatory periods. The EBSS provides a constant incentive to improve efficiency.

The EBSS aims to encourage efficient and timely expenditure throughout the regulatory control period by removing the incentive to only seek efficiency gains in the first half of the regulatory period. It will encourage DNSPs to reveal their efficient opex amounts. Consequently, the AER will be better placed to determine efficient forecasts going forward, and in time, these benefits will be passed back to consumers.

3.3.2.2 The need to provide DNSPs with a continuous incentive, so far as is consistent with economic efficiency, to reduce operating expenditure and, if the scheme extends to capital expenditure, capital expenditure

The EBSS is designed to ensure that a DNSP facing a potential efficiency gain does not perceive a material advantage in either deferring or advancing an efficiency gain or loss, but rather that it faces an essentially constant benefit or cost from implementing a gain or loss as it arises. The measurement of gains and losses should not be artificially affected by, for example, shifting costs between years. Rather, it should represent genuine business outcomes that have arisen in the ordinary course of conducting the business in a prudent and diligent manner.

Under the NER regulatory incentive framework, efficiencies are normally only retained until the end of the regulatory period. In the absence of an EBSS this may create an incentive for DNSPs to realise opex efficiencies early in the regulatory control period, so that the benefit of that efficiency can be retained for a longer period of time. The EBSS reduces this incentive by allowing DNSPs to retain the benefit of an efficiency gain for the length of the carryover period (5 years), regardless of the regulatory year in which it is achieved.

There is a perceived incentive for DNSPs to increase opex in the third or fourth year of the regulatory control period, as these are the years commonly used by regulators as the starting point in forecasting opex requirements for the following regulatory period.

This incentive to increase opex for the regulatory period in year four is at least partly counteracted by the symmetrical nature of the scheme. DNSPs may be inclined to strategically defer opex until the base year, to increase opex forecasts for following regulatory periods. However, the symmetrical nature of the EBSS means that any overspend in that year will be penalised for the length of the carryover period. Any potential gains to the DNSP from increasing opex in the base year will have to be weighed up against the penalties that will be incurred for 5 years after the overspend.

The AER's EBSS thus provides DNSPs with a continuous incentive to achieve efficiency gains, and minimise efficiency losses, in each year of the regulatory period. It allows DNSPs to continue to receive the benefits of an efficiency gain for a full five years after the year in which the gain was realised. This removes the incentive for DNSPs to 'stack' opex later in the period.

The AER's EBSS does not extend to capital expenditure, and deals only with opex. This decision is explained in the Final decision—Electricity distribution network service providers—Efficiency benefit sharing scheme, which is available on the AER's website at www.aer.gov.au.[59]

3.3.2.3 The desirability of both rewarding DNSPs for efficiency gains and penalising DNSPs for efficiency losses

In developing the EBSS, the AER's modelling demonstrated that application of positive and negative carryovers was important for the continuity of incentives to improve efficiency. Without symmetrical carryovers, there is a perceived incentive to

[59] AER, Final decision—Electricity distribution network service providers—Efficiency benefit sharing scheme, June 2008, p. 9.

shift opex into the base year of the regulatory period to increase forecasts for the forthcoming regulatory period. The AER concluded that symmetry in the EBSS was therefore appropriate.

Any negative or positive carryover amount will be included as a building block element in the calculation of a DNSP's allowed revenue for the following regulatory period. In this way negative and positive gains are treated equally to ensure that the incentives created by the EBSS are not skewed in favour of realising opex efficiencies only during the early years of the regulatory period.

3.3.2.4 Any incentives that DNSPs may have to capitalise expenditure

An important outcome of the EBSS is that it provides a constant incentive for DNSPs to improve efficiency of opex throughout the regulatory period. As the EBSS is not applied to capex, the incentive later on in the regulatory period to reduce capex is less than the incentive to reduce opex. This means that later in the period, DNSPs may have an incentive to shift opex to capex (as the later years of a regulatory period are used to forecast opex for the next regulatory period). This incentive is mitigated by the AER's requirement that DNSPs provide the AER with a detailed description of any changes to its capitalisation policy, and a calculation of the impact of those changes on forecast and actual opex. To negate any incentive to inappropriately capitalise opex where it is not efficient to do so, the AER will adjust the forecast and actual opex figures used to determine the carryover amounts to account for any changes in capitalisation policy.

3.3.2.5 The possible effects of the scheme on incentives for the implementation of non-network alternatives

Expenditure on non-network alternatives generally takes the form of opex, rather than capex. Because the EBSS is not applied to capex, the incentive later in the regulatory period to reduce capex is less than the incentive to reduce opex. Therefore, where expenditure for non-network alternatives is operational (as opposed to capex), a DNSP may have a greater incentive to augment its network later in the period than to implement non-network alternatives. The AER's EBSS excludes all costs associated with non-network alternatives. This removes the potential impact of the EBSS on such decisions, which may otherwise discourage DNSPs from considering demand management.

3.3.2.6 An efficiency benefit sharing scheme for Energex and Ergon for the regulatory control period must not cover efficiency gains and losses relating to capital expenditure [60]

The transitional rules for Queensland state that if applying an EBSS to Queensland DNSPs, the AER must not apply the EBSS to efficiency gains relating to capex. The AER's EBSS does not include efficiency gains for capex.

60 NER, clause 11.16.4(a).

3.3.2.7 For the purposes of clause 6.5.8(c) the AER must also have regard to the continuing obligations on Energex and Ergon throughout the regulatory control period to implement the recommendations from the EDSD Review adopted by the Queensland Government [61]

In relation to opex, the EDSD recommended that Energex and Ergon increase the preventative maintenance on their networks from that which was carried out prior to 2004.

The most recent data for Energex and Ergon indicates that the Queensland DNSPs have overspent on opex on the Queensland distribution networks in the first two years of the current regulatory period. If combined with an STPIS and the current jurisdictional GSL, the AER considers it is appropriate to apply an EBSS to Energex and Ergon in the AER's 2010 determinations. While there may be concerns in applying an EBSS to DNSPs that have been consistently underspending on opex, the AER considers that this concern is no longer applicable in Queensland. The AER considers that applying an STPIS in conjunction with an EBSS would address the key concern raised regarding inadequacies in the regulatory framework by the EDSD review.

It is also noted that if the EBSS is not applied to Energex and Ergon in the 2010–15 regulatory control period it will not be applied until the 2015–20 regulatory period, in which case the sharing of efficiency gains and losses will not take place until the 2020–25 regulatory period.

3.3.3 AER's preliminary position on the application of the AER's distribution EBSS to Energex

The AER's preliminary position is that the national EBSS will be applied to Energex in the 2010–15 regulatory control period. In forming this position, the AER has had regard to the matters identified in clauses 6.5.8(c) and 11.16.4 of the NER.

The EBSS requires Energex to propose, as part of its regulatory proposal, any categories of uncontrollable opex to be excluded from the operation of the EBSS. Energex must provide identifiable reasons for the opex categories to be excluded, and categories should not involve an ongoing business activity.

Energex is also required to propose a relevant growth adjustment method as part of its regulatory proposal for the 2010–15 regulatory control period.

The relevant base year for setting opex targets for future regulatory periods will be established in the AER's determination.

3.3.4 AER's preliminary position on the application of the AER's distribution EBSS to Ergon

The AER's preliminary position is that the EBSS will be applied to Ergon in the 2010–15 regulatory control period. In forming this position, the AER has had regard to the matters identified in clauses 6.5.8(c) and 11.16.4 of the NER.

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61 NER. clause 11.6.4(b).

The EBSS requires Ergon to propose, as part of its regulatory proposal, any categories of uncontrollable opex to be excluded from the operation of the EBSS. Ergon must provide identifiable reasons for the opex categories to be excluded, and categories should not involve an ongoing business activity.

Ergon is also required to propose a relevant growth adjustment method as part of its regulatory proposal for the 2010–15 regulatory control period.

The relevant base year for setting opex targets for future regulatory periods will be established in the AER's determination.

4 Application of a demand management incentive scheme

4.1 Introduction

This chapter sets out the AER's likely approach to the application of a DMIS to Energex and Ergon, and its reasons for that approach.

The objective of a DMIS is 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. The DMIS operates in conjunction with existing incentives in the regulatory framework to pursue these objectives.

Demand management refers to the implementation of any strategy to address growth in demand or peak demand in order to defer or remove the need for network augmentation. Network owners can seek to undertake demand management through a variety of mechanisms, such as incentives for customers to change their demand patterns, operational efficiency programs, or load control technologies. This can have positive impacts by reducing inefficient peaks and encouraging the more efficient use of existing network assets, resulting in lower prices for network users.

4.2 Requirements of the National Electricity Rules

The AER's distribution determinations for Energex and Ergon for the 2010–15 regulatory control period will specify how a DMIS is to be applied to Energex and Ergon in that period.[62] In its framework and approach paper, the AER must set out its likely approach, and its reasons for that approach, to the application of a DMIS in those determinations.[63]

4.2.1 Transitional rules

There are no transitional provisions relating to DMIS for the Queensland DNSPs.

4.2.2 DMIS applicable to Energex and Ergon

As part of the framework for economic regulation of distribution services, the NER allow the AER to develop and publish a 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.[64] Unlike the STPIS and the EBSS, the AER is not required to develop a DMIS. However, where it does elect to do so, it must follow the distribution consultation procedures described in the NER.

Consultation on a DMIS suitable for consistent application across the NEM has not yet commenced. Therefore a national DMIS will not be sufficiently developed in time for the AER to prepare and consult on a likely approach to its application to Energex and Ergon before it must publish its framework and approach paper for the Queensland DNSPs on 30 November 2008. For that reason, the AER has consulted

62 NER, clause 6.3.2(a)(3)

63 NER, clause 6.8.1(b)(3)

64 NER, clause 6.6.3(a)

separately on the development of a DMIS that can be applied to Energex, Ergon and ETSA Utilities, whose framework and approach papers are to be completed on the same day.[65] A proposed DMIS to apply to Energex, Ergon and ETSA Utilities was published on 30 June 2008, and is available on the AER's website, www.aer.gov.au.

This paper sets out the AER's likely approach to the application of the proposed DMIS to Energex and Ergon. In its final framework and approach paper for Energex and Ergon, the AER will take into account any submissions on both this paper and on the proposed DMIS. The AER's framework and approach paper—application of schemes will set out the AER's likely approach to the application of a DMIS to the Queensland DNSPs.

4.2.3 Structure of the AER's proposed DMIS

The AER's proposed DMIS, released on 30 June 2008, considers that a demand management innovation allowance should be applied to Energex and Ergon over the 2010–15 regulatory control period.

4.2.3.1 Demand management innovation allowance

The AER's proposed DMIS, released on 30 June 2008, is in the form of a demand management innovation allowance.

The demand management innovation allowance aims to encourage DNSPs to undertake innovative and/or broad-based demand management, which may assist in providing long-term benefits to consumers and DNSPs through more efficient utilisation of network assets resulting in lower network prices than would otherwise occur.

The demand management innovation allowance will take the form of an annual ex ante allowance provided as a fixed amount of additional revenue at the commencement of each regulatory year. The total amount recoverable under the allowance within a regulatory control period will be capped at an amount that is broadly proportionate to the size of the DNSP's annual revenue requirement in the previous regulatory period, and distributed evenly across each year of the regulatory control period. This approach is consistent with that taken in the development of the innovation allowance for DNSPs in NSW and the ACT determinations, in that the allowance for Energex and Ergon will be proportionate to that given to DNSPs of comparable size in other jurisdictions.

Expenditure under the allowance will be assessed annually on an ex post basis, against criteria established in the scheme. While the allowance will be made available on an ex ante basis, only approved expenditure will be deemed recoverable. The amount of any expenditure that is not approved will be deducted from the allowed revenue in the subsequent regulatory control period. Any underspend accumulated at the end of the relevant regulatory period will not be retained in the next regulatory period, and will also be deducted from revenue in the subsequent regulatory period. This adjustment will also adjust for the time value of money, to render the scheme insensitive to expenditure profiles over the regulatory control period.

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[65] AER, Issues Paper – Potential development of demand management incentive schemes to apply to Energex, Ergon Energy and ETSA Utilities over the 2010–15 regulatory control period, April 2008

The AER will require that the application for cost recovery is made public as part of a report on demand management programs carried out by DNSPs. In addition, at the completion of the DNSPs' annual service standards reviews, the AER will publish:

- the amount of any approved expenditure, and its reasons for approving, or not approving, expenditure under the demand management innovation allowance, and
- the time value of money accrued / lost as a result of the expenditure profile selected by the DNSP.

As the regulatory control period progresses, this will allow the AER to collect and publish information on the nature and extent of expenditure under the DMIS.

Further details of the DMIS are provided in the AER's proposed DMIS, available on the AER's website, www.aer.gov.au.

4.2.4 Implementing the DMIS

In applying the AER's proposed DMIS to Energex and Ergon, the AER must have regard to the following factors outlined in clause 6.6.3 of the NER:

- 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 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
- the extent the DNSP is able to offer efficient pricing structures
- the possible interaction between a DMIS and other incentive schemes
- the willingness of the customer or end user to pay for increases in costs resulting from implementation of the scheme.

The AER's likely approach to the implementation of a DMIS in Energex's and Ergon's distribution determinations, and its consideration of the above factors, is set out in the sections that follow.

4.3 Application of the AER's proposed DMIS to Energex and Ergon over the 2010–15 regulatory control period

The following sections combine analysis in relation to the application of the AER's proposed DMIS to both Energex and Ergon. The AER considers that there are sufficient similarities in the current arrangements to which the Queensland DNSPs are subject and common issues such that it is appropriate for the AER to consider the application of the DMIS to the DNSPs concurrently at this stage. However, should reasons for differences in the application of the scheme to each DNSP emerge, the AER will consider the scheme's application to Energex and Ergon separately within its final framework and approach paper.

4.3.1 Operating environment in Queensland

Energex's and Ergon's 2006–07 annual reports detail substantial capital works programs for network expansion to meet rising demand on the networks. Demand, in particular summer peak demand, has been rising in the NEM in recent years, due in part to the increasing use of residential air conditioners and other appliances. In Queensland, strong economic and population growth is contributing to the increasing demand for electricity.

Maximum demand on Energex's network is forecast to grow by 5.9 per cent over summer 2007–08.[66] While the *Energex Annual Network Management Plan for 2007–08* outlines an expected period of high growth in demand for electricity over the next couple of years, it also notes that as air conditioner and other appliance saturation occurs, growth in energy demand is expected to stabilise in South East Queensland over the 2010–15 period.[67]

Ergon's *Sustainability Report 2007* states that in recent years there has been a three fold increase in customer–initiated works and new connections on its network, as a result of strong growth in regional Queensland.[68] It states that the maximum demand on Ergon's network has been increasing at around 5.5 per cent per annum, due largely to the increased use of air conditioning, other appliances, and the mining boom.[69] Ergon forecasts maximum demand on its network to grow by an average of 4.3 per cent per annum over the next few years.[70]

Recent growth in peak demand and planned network expenditure in Queensland indicate that there is potentially a role for demand management in Energex's and Ergon's networks. Demand management may assist the Queensland DNSPs to meet forecast demand requirements while maintaining or reducing the level of planned expenditure on their networks.

4.3.2 Consideration of NER criteria

In applying its demand management incentive scheme Energex and Ergon, the AER has had regard to the following factors outlined in clause 6.6.3 of the NER:

4.3.2.1 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 DNSPs

The rewards and penalties payable under a DMIS must be set at a level that ensures that the increases in customers' prices resulting from the associated adjustment to regulated revenues do not exceed the benefits expected to result from the implementation of the DMIS. In striking the appropriate balance, it must be recognised that the operation of such a scheme may result in price impacts within a regulatory period where benefits are unlikely to be revealed until later periods.

The demand management innovation allowance is a modest scheme, provided on a 'use it or lose it' basis. Consequently increases in customer prices should be minimal.

66 Energex, *Energex Summer Preparedness Plan 2007–08*, p. 1.

67 Energex, *Energex Annual Network Management Plan 2007/08 to 2011/12*, pp. 31–2.

68 Ergon Energy, *Ergon Sustainability Report 2007*, 2007 p. 28.

69 ibid.

70 ibid.

The AER's DMIS encourages the implementation of demand management initiatives which provide long–term efficiency gains to energy users that may outweigh any short term price increases. The allowance is designed to provide incentives for DNSPs to conduct efficient, broad-based and/or innovative demand management programs, and should coordinate well with both existing and potential demand management initiatives being carried out by Energex and Ergon in the 2005–10 regulatory period. Due to rising demand in Queensland, a broad-based scheme that targets general demand reduction and encourages efficient energy use across the distribution network, rather than specific areas, may be appropriate.

Given that peak demand is a key driver of network capital expenditure, a demand management innovation allowance could also be used for initiatives which result in a more efficient use of existing infrastructure and a lower level of investment in new infrastructure through either deferral, or removal of the need for, network augmentation or expansion expenditures.

4.3.2.2 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

The proposed demand management innovation allowance is compatible with a range of control mechanisms, and as such is not constrained by the AER's decision on the form of control to apply to Energex and Ergon.

The AER considers that the application of its proposed demand management innovation allowance to Energex and Ergon is appropriate as it is a simple, modest scheme that is unlikely to negatively interact with other elements and incentive schemes within the regulatory framework.

4.3.2.3 The extent the DNSP is able to offer efficient pricing structures

In applying the AER's proposed DMIS to Energex and Ergon, the AER must have regard to the extent that the Queensland DNSPs are able to offer efficient pricing structures.

Ideally, efficient pricing structures exist where the price of electricity at a particular point in the network reflects the true costs of its supply at a particular point in time. For instance, efficient pricing structures should reflect increases in costs of electricity supply in times of peak demand.

The AER considers that a national roll-out of interval meters may be considered by Council of Australian Governments by or during the 2010-15 regulatory control period. However, the AER also considers that there are limitations on the Queensland DNSPs' abilities to send signals to the market regarding constraints on the network through price. These limitations are imposed by the current practice of retail price bundling.

The Queensland government currently subsidises electricity distribution to non-market customers in regional and remote parts of Queensland, where the costs of supplying electricity exceeds a uniform tariff established by the Minister for Mines and Energy. This subsidisation insulates in a large proportion of Ergon's non-market customers from cost reflective pricing.

The AER acknowledges that there are barriers to Energex and Ergon offering efficient pricing structures. The AER considers that the application of its demand management innovation allowance will provide incentives for Energex and Ergon to trial tariff-based demand management programs which will provide further information on mechanisms for efficient pricing.

4.3.2.4 The possible interaction between a DMIS and other incentive schemes

In applying the AER's proposed DMIS to Energex and Ergon, the AER must have regard to the interaction of that scheme with the incentives created by other incentive schemes. As outlined in chapters 2 and 3 of this paper, the AER's preliminary position is that both an EBSS and STPIS will be applied to Energex and Ergon in the 2010-15 regulatory control period.

Increased expenditure on demand management within a regulatory control period may increase opex above levels forecast in a distribution determination. This could lead to a corresponding and unintended penalty under the EBSS. To minimise the impact of the EBSS on the incentives to undertake efficient demand management programs, the AER's EBSS excludes costs associated with demand management from the calculation of opex overspends and underspends.

The incentive created by the DMIS is for Energex and Ergon to develop and implement demand side management in response to network issues.

The AER is aware of the perceived disincentive to implement non-network alternatives to augmentation created by the reliability performance measures in its STPIS, such that incentives to undertake demand side management may be diminished by what is seen as a greater risk that targets will not be met. The DMIS operates to reduce the perceived risk by encouraging DNSPs to build their demand management capacity and to develop and implement viable demand management strategies.

The AER considers that the application of its proposed demand management innovation allowance to Energex and Ergon will not negatively interact with the incentives created by the STPIS or EBSS, or send conflicting signals in terms of desired expenditure outcomes.

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

The costs associated with the application of the proposed demand management innovation allowance to Energex and Ergon should be commensurate with the value that the DNSPs' customers, or end users, attach to demand management. While studies to date indicate that customers are supportive in principle of demand management initiatives, little is known about their willingness to pay.

The AER considers that the application of its proposed DMIS is appropriate in light of the limited information available to date on customer willingness to pay for demand management, as the scheme provides a modest, capped allowance for demand management initiatives and is unlikely to result in large increases in customers' prices.

4.3.3 AER's preliminary position on the application of a DMIS to Energex

The AER's preliminary position is that it will apply a DMIS in the form of a demand management innovation allowance to Energex over the 2010–15 regulatory control period. The allowance will be capped at $5 million over the regulatory control period, nominally allocated in five equal instalments of $1 million per annum. The AER considers that this allowance will allow Energex to carry out a number of small–scale demand management projects, or a single larger–scale demand management project over the regulatory control period.

The AER considers it appropriate that the primary source of funding for demand management in a regulatory control period should be the forecast opex and capex approved in a distribution determination. The demand management innovation allowance will be provided in addition to any opex and capex allowances for demand management projects included within the AER's distribution determination for Energex.

4.3.4 AER's preliminary position on the application of a DMIS to Ergon

The AER's preliminary position is that it will apply a DMIS in the form of a demand management innovation allowance to Ergon over the 2010–15 regulatory control period. The allowance will be capped at $5 million over the regulatory control period, nominally allocated in five equal instalments of $1 million per annum. The AER considers that this allowance will allow Ergon to carry out a number of small–scale demand management projects, or a single larger–scale demand management project over the regulatory control period.

The AER considers it appropriate that the primary source of funding for demand management in a regulatory control period should be the forecast opex and capex approved in the distribution determination. The demand management innovation allowance will be provided in addition to any opex and capex allowances for demand management projects included within the AER's distribution determination for Ergon.