Final Decision

Demand Management Incentive Scheme

Energex, Ergon Energy and ETSA Utilities

2010–15

October 2008

Contents

Shortened forms

AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
capex	capital expenditure
CEC	Clean Energy Council
CPRS	carbon pollution reduction scheme
CPUC	California Public Utilities Commission
DMIA	demand management innovation allowance
DMIS	demand management incentive scheme
DNSP	distribution network service provider
EBSS	efficiency benefit sharing scheme
GWh	giga watt hours
MCE	Ministerial Council on Energy
NEL	National Electricity Law
NEM	National Electricity Market
NER	National Electricity Rules
NPV	net present value
opex	operating expenditure
RAB	regulatory asset base
STPIS	service target performance incentive scheme
TEC	Total Environment Centre
WAPC	weighted average price cap

1 Introduction

Chapter 6 of the National Electricity Rules (NER) allows the AER to develop and publish a demand management incentive scheme (DMIS) to provide incentives for distribution network service providers (DNSPs) to implement efficient non-network alternatives or to manage the expected demand for standard control services in some other way.

This DMIS has been developed in the context of the framework and approach papers for DNSPs in Queensland and South Australia.

On 18 April 2008, the AER released an issues paper on the potential development of a DMIS to apply to Energex, Ergon Energy and ETSA Utilities over the 2010–15 regulatory control period. Following general stakeholder support for the development of a DMIS, the AER released its proposed scheme on the 30 June 2008. The AER received six submissions on its proposed DMIS, which are available on the AER's website, www.aer.gov.au.

This final decision sets out the AER's consideration of comments raised in submissions on the proposed DMIS. In developing this final decision, consideration has been given to the objectives of NER and National Electricity Law (NEL), and submissions received.

2 Requirements of the National Electricity Rules

The AER may develop a DMIS 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.[1]

In developing and implementing a DMIS, the AER must have regard to:

- the need to ensure that benefits to consumers likely to result from the scheme are sufficient to warrant any reward or penalty under the scheme for DNSPs
- the effect of a particular control mechanism (i.e. controls over prices as distinct from controls over revenues) 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.[2]

The distribution consultation procedures in part G of chapter 6 of the NER require the AER to publish a proposed DMIS and explanatory statement, inviting submissions and giving stakeholders and interested parties at least 30 business days to respond. The AER's proposed DMIS and explanatory statement were published for consultation on 30 June 2008.

Within 80 business days of publishing the proposed DMIS, the AER must publish its final decision and the DMIS. The AER has developed and published this final decision and DMIS in accordance with the distribution consultation procedures under rule 6.16 of the NER. Any revisions to this DMIS will also be made in accordance with the distribution consultation procedures as required by clause 6.6.3(c) of the NER.

[1] NER, cl. 6.6.3(a)
[2] NER, cl. 6.6.3(b)

3 Reasons for the demand management incentive scheme

The objective of the AER's 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.[3]

The DMIS is not intended to be the sole, or the primary, source of recovery of demand management expenditure. The AER considers that the primary source of funding for demand management in a regulatory control period should be the forecast operating expenditure (opex) and capital expenditure (capex) approved in the DNSP's distribution determination under chapter 6 of the NER.

The AER notes that while the current regulatory framework provides incentives for DNSPs to conduct demand management, it may also create some disincentives to do so. For instance, the regulatory framework provides a financial incentive for DNSPs to undertake demand management that defers capex included in the forecast approved at the time of the distribution determination, to the extent that the financial benefits of the capex deferral (the return on and of capital) outweigh the demand management expenditure required to achieve that deferral. However, non-network solutions to rising peak demand are perceived by some DNSPs to offer a lower (inherent and/or perceived) level of reliability when compared to network solutions. This has implications for a DNSP's reliability obligations and service performance.

The DMIS complements the existing approved capital and operating expenditure incentives for demand management, by facilitating investigation into efficient and viable demand management strategies so that DNSPs can improve their demand management capabilities in the longer term. It also allows DNSPs to investigate and implement efficient non-network alternatives, and to help manage the expected demand for standard control services, beyond that which may be readily captured in its core revenue proposal, and both within and beyond the regulatory control period in which the scheme is applied.

[3] NER, clause 6.6.3(a)

4 AER's proposed demand management incentive scheme

On 30 June 2008, the AER published a proposed DMIS to apply to Energex, Ergon Energy and ETSA Utilities in the regulatory control periods commencing 1 July 2010.

The proposed DMIS involved an ex ante demand management innovation allowance (DMIA), to be provided as a fixed amount of revenue at the commencement of each regulatory year. The total amount recoverable under the allowance within a regulatory control period was capped at an amount broadly proportionate to the size of the DNSP's average annual revenue requirements in the previous regulatory control period, and distributed evenly across each regulatory year of the regulatory control period. Unlike the NSW/ACT DMIS, the proposed DMIS for Queensland and South Australia did not have a forgone revenue component to allow a DNSP to recover forgone revenue as a result of approved demand initiatives under the DMIA.

The DMIA was to be provided on a use-it-or-lose-it basis, and in addition to any opex and capex allowances for demand management projects approved in the AER's distribution determination for a DNSP.

Interested parties were invited to make submissions on the proposed DMIS and the accompanying explanatory statement. The AER received six submissions on the proposed DMIS. The AER's consideration of the issues raised in submissions is set out in section 5 below.

5 Issues raised in submissions and the AER response

5.1 Objective of the AER's proposed DMIS

5.1.1 Stakeholder comments

The Clean Energy Council (CEC) submitted that there is a defined obligation on the AER to facilitate an efficient level of investment in demand management in the National Electricity Market (NEM), and that the AER should make clear its intention to fulfil that objective. The CEC stated that, if the AER is of the view that it does not have a clearly defined mandate, it should articulate this in its final decision on the DMIS.[4]

5.1.2 AER response

As reflected in the national electricity objective, the purpose of the framework for economic regulation of distribution services is established in chapter 6 of the NER. The AER's role as the economic regulator of those services is to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:

- price, quality, safety, reliability and security of supply of electricity; and
- the reliability, safety and security of the national electricity system.

This is also consistent with clause 6.6.3(a) of the NER which allows development of a DMIS:

> …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.

In developing and implementing a DMIS for this purpose, the AER operates under the umbrella of the national electricity objective.

5.2 Interaction of the scheme with other incentive mechanisms

5.2.1 Stakeholder comments

The Total Environment Centre (TEC) submitted that the AER should ensure that where there is conflict between other incentive schemes, such as the efficiency benefit sharing scheme (EBSS) and the service target performance incentive scheme (STPIS), demand management is given priority and not disadvantaged.[5]

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[4] Clean Energy Council, *Proposed demand management incentive scheme to apply to Energex, Ergon and ETSA Utilities*, submission to the AER, p. 3.

[5] Total Environment Centre, *Demand Management Incentives for Energex, Ergon Energy and ETSA Utilities for 2010-2015*, submission to the AER, p. 7.

Energex sought confirmation that expenditure under the DMIA will be excluded from the EBSS, irrespective of whether it satisfies the ex-post approval stage.[6]

5.2.2 AER response

Where expenditure on demand management within a regulatory control period has not been contemplated in approved opex forecasts, it may result in an increase in opex above forecast levels, which could lead to a corresponding penalty under the EBSS. In order to minimise the impact of the EBSS on the incentives to undertake efficient demand management programs, the AER will exclude identifiable operating expenditure on non-network alternatives from the actual and forecast opex amounts used to calculate carryover gains or losses under the EBSS.[7] This exclusion includes demand management expenditure in the form of approved opex, opex underspends and overspends, and expenditure under the DMIS. Demand management expenditure submitted for approval under the DMIS, but rejected on the basis that it does not relate to demand management projects or programs in accordance with the DMIA criteria, will not be recognised as demand management expenditure. If that expenditure cannot otherwise be attributed to non-network alternatives, it will not be excluded from the operation of the EBSS.

The issue of whether the STPIS should exclude outages related to demand management initiatives, to balance the perceived disincentives to adopt non-network alternatives to network augmentation, was considered specifically in the development of the STPIS.[8] The objective of the STPIS is to maintain or improve service performance. Customers should not be worse off in terms of the level of service performance they receive, due solely to the implementation of demand management programs or non-network alternatives to augmentation. The AER's STPIS is designed to be as neutral as possible regarding the level of reliability provided by network solutions vis-à-vis non-network alternatives (i.e. DNSP service performance is not distinguished on this basis in the STPIS). This is intended to ensure that consistent signals for reliability performance are maintained. The AER considers that the risks associated with the reliability of a non-network alternative are best managed by a DNSP through the commercial arrangements it establishes in relation to non-network measures.

5.3 Interaction of a DMIS with control mechanisms

5.3.1 Stakeholder comments

The TEC supports the application of a revenue cap for DNSPs over a price cap, in order to decouple electricity consumption and DNSP revenue and profitability.[9]

The CEC recommended that separate schemes be developed for Queensland and South Australia to account for any differences in the forms of control applied to

[6] Energex, *Proposed Demand Management Incentive Scheme for Energex, Ergon Energy and ETSA Utilities for the 2010-15 Regulatory Control Period,* submission to the AER, p. 2.

[7] AER, *Electricity distribution network service providers – Efficiency benefit sharing scheme,* V.1, 26 June 2008, p. 7 (section 2.3.2).

[8] AER, *Electricity Distribution Network Service Providers - Service Target Performance Incentive Scheme*, Final Decision, June 2008.

[9] Headberry Partners and Bob Lim & Co., *Does Current Electricity Network Regulation Actively Minimise Demand Side Responsiveness in the NEM?*, June 2008, p. 15.

DNSPs in those jurisdictions. The CEC also noted that the form of control proposed for Queensland, which is a revenue cap, provided a more transparent and effective means of ‘decoupling’ DNSP revenue from electricity sales than the Q factor proposed in the AER’s preliminary positions paper for ETSA Utilities. As a result, the CEC submitted that South Australia required a stronger DMIS to offset the disincentive to undertake demand management under the form of control proposed in the preliminary positions paper for ETSA Utilities.[10]

5.3.2 AER response

The NER allow for different control mechanisms to be applied to different DNSPs. Under forms of control where the amount of approved regulated revenue is at least partially dependent on the quantity of electricity sold (e.g. a price cap), a successful demand management program that causes a reduction in demand may result in less revenue to a DNSP. This means a DNSP has a disincentive to reduce electricity sales. To remove this disincentive, part B of the final DMIS allows a DNSP that is subject to such a form of control to recover forgone revenue directly attributable to a reduction in the quantity of electricity sold due to the implementation of a demand management program approved under part A of the scheme.

The AER will assess the effect a form of control will have on a DNSP’s incentive to undertake demand management projects or programs on a case-by-case basis. A likely approach to the application of part B of the DMIS to a DNSP (where such application is appropriate) will be set out in the AER’s framework and approach paper, at the time the decision on the form of control to apply to that DNSP is made. The AER’s final decision on the application of the DMIS to a DNSP will be made in its distribution determination for that DNSP.

5.4 Disincentives for demand management under the building block model

5.4.1 Stakeholder comments

The TEC submitted that there is a disincentive embedded in the building block approach for DNSPs to conduct demand management. The TEC stated that, under the building block approach, DNSPs have an incentive to find network solutions through new capex proposals as this increases a DNSP’s profitability, and many demand management programs are opex based rather than network based.[11]

The TEC made a number of recommendations to reduce the disincentives in the NEM for demand management:

1. Separate and parallel demand management incentive schemes, established and overseen by regulators, are the most effective way of ensuring demand management initiatives by network businesses

2. The use of a revenue cap, removing the incentive for networks to increase demand and consumption, would be required in addition to DM incentive schemes

[10] Clean Energy Council, op.cit, p. 4.
[11] Headberry Partners and Bob Lim & Co., op.cit, p. 12-13.

3. Demand management programs for each network business might contain the following features:

    a. Identification of demand management options and target outcomes, and to establish a pact between regulators and network businesses

    b. Inclusion of a fixed amount of funding for DM to be included in the allowed revenue for the network business

    c. Incorporation of a program of benefit sharing, and financial incentives and penalties

    d. Implementation as part of the regulatory reset

4. An overarching energy policy requirement should be set by government for actioning energy efficiency targets across the entire electricity supply chain

5. Consumers should engage in regulatory reviews where the Building Block approach is used and to contest network business' capital expenditure and rate of return claims

6. Consumers should engage in regulatory reviews using the price cap form of regulation (under the Building Block approach) to contest claims with respect to pricing methodologies and cost allocation mechanisms.[12]

5.4.2 AER response

The AER considers that separate demand management incentive schemes for Queensland and South Australia are unnecessary, as a DMIS suitable for both of these jurisdictions is able to be developed at this time.

The TEC has recommended that revenue caps be applied to all DNSPs, in addition to the application of a DMIS. The AER's decision on the form of control applicable to a DNSP is to be made in accordance with the relevant criteria in the NEL and NER. While the effect of a form of control on demand management incentives is a relevant factor in the AER's decision on which form of control to apply, this factor alone is not determinative, but rather one of many factors the AER must consider under the NER and NEL. The new forgone revenue component under part B of the DMIS is designed to mitigate disincentives for a DNSP to undertake demand management associated with particular forms of control. Where the form of control results in a DNSP's revenue being partially dependent on the quantity of electricity sold, the AER may allow a DNSP to recover forgone revenue resulting from a reduction in the quantity of energy sold due to the implementation of approved demand management initiatives. The AER does not consider that such a mechanism is required when a revenue cap is in place.

The TEC also recommended the implementation of demand management programs which identify demand management options and target outcomes, and that establish a pact between regulators and network businesses. The AER considers that the DMIA provides a more desirable level of flexibility than an established pact or fixed project

[12] ibid., p. 4-5.

plan. The DMIA provides DNSPs with broad direction as to what demand management projects should be pursued, whilst encouraging innovative solutions. A DMIS of this nature is also more consistent with the broader ex ante regulatory framework.

The AER notes that many of the recommendations made by the TEC are addressed in the final DMIS. The DMIA provides DNSPs with a fixed allowance to conduct demand management initiatives, applied as part of its distribution determination. The DMIS will be implemented by the AER at the time of making a determination. DNSPs may propose additional demand management related expenditure as part of their regulatory proposals. Demand management expenditure outside the DMIS will be considered in consultation with stakeholders on a DNSP's regulatory proposal, through the distribution determination process.

The TEC also recommended that a program of financial incentives and penalties be incorporated into a demand management scheme. The primary objective of the DMIS, as currently formulated, is to build capacity and provide incentives for DNSPs to implement demand management initiatives where efficient to do so. This is a seen as an appropriate objective for the DMIS at this relatively early stage of the development of demand management initiatives and measures by DNSPs. In this setting, there is no pre-determined level of efficient demand management expenditure, or efficient demand, against which DNSPs can be rewarded or penalised. The AER expects that the merits of financial incentives and penalties under a DMIS will be considered further in the development of a national DMIS.

The TEC also proposed that an overarching energy policy requirement should be set by government for actioning energy efficiency targets across the entire electricity supply chain. This recommendation is beyond the scope of the AER's role as an economic regulator.

The AER supports the TEC's submission that consumers should engage in regulatory reviews to contest network businesses' capital expenditure, rate of return claims, pricing methodologies and cost allocation mechanisms. The AER notes that part E of chapter 6 of the NER specifies consultation procedures on these matters as part of the distribution determination process which consumers may participate in.

5.5 Application of a D-factor to Energex, Ergon and ETSA Utilities

5.5.1 Stakeholder comments

ETSA Utilities submitted that the NSW D-factor should be applied in South Australia for the 2010-15 regulatory control period, subject to modifications to include:

- encouragement of broad-based demand management
- potential government policy changes to demand management over the next regulatory control period.

ETSA Utilities proposed that the costs of these programs, and forgone revenue resulting from them, be recoverable in the same way as network constraint programs currently in NSW.[13]

The CEC supported a D-factor unless the DMIS negated the need for it.[14] The TEC submitted that it supported a D-factor incentive in the context of price cap regulation. The TEC also recommended that the D-factor be applied in South Australia as it would present an opportunity for further trialling of the D-factor in a jurisdiction other than NSW.[15]

Ergon Energy confirmed its understanding that a D-factor will not be applied to it in the forthcoming regulatory control period.[16]

5.5.2 AER response

ETSA Utilities has submitted that a weighted average price cap (WAPC) form of control be applied in the forthcoming regulatory control period to replace the current mechanism. The WAPC proposed by ETSA Utilities would result in its recovery of the annual revenue requirement being at least partially dependent on the amount of electricity sold.

As stated in section 5.3.2 above, the AER recognises the effect that different forms of control may have on a DNSP's incentives to undertake demand management. The AER also recognises the potential for a D-factor scheme to provide positive incentives for a DNSP to conduct demand management initiatives in certain circumstances. However, the AER considers that the results of the D-factor for the three DNSPs in NSW have to date been inconclusive, and that continued observation of the scheme over the 2009–14 regulatory control period in NSW will provide a better foundation from which to consider the effectiveness of this scheme.

In contrast to the D-factor, the DMIA is broader in scope, and provides for recovery of broad-based and/or peak demand management projects throughout the regulatory control period. It is designed to promote innovative developments in the area of demand management rather than focussing on specified areas of the network, such as to deal with particular network constraints. This means that whereas the D-factor only allows DNSPs to recover the costs of demand management initiatives where they are demonstrated to be cost effective in addressing specific network constraints, under the DMIA, a DNSP only needs to show that its expenditure is broadly associated with demand management projects which may have a narrower or broader impact. Funding is therefore not dependent on a DNSP being required to demonstrate a reduction in demand associated with a particular demand management project, or any deferral of planned capex projects. Similarly, approval under the DMIA is not dependent upon outcomes, rather it aims to provide incentives for innovative research and

13 ETSA Utilities, *Submission to the AER's Preliminary positions framework and approach paper*, submission to the AER, p. 32-34.

14 Clean Energy Council, op.cit., p. 4.

15 Total Environment Centre, *Demand Management Incentives for Energex, Ergon Energy and ETSA Utilities for 2010-2015*, op.cit., p. 6.

16 Ergon Energy, *Explanatory Statement and proposed demand management incentives for Energex, Ergon Energy and ETSA Utilities for 2010-2015*, submission to the AER, p. 1.

investigation in demand management, to help build DNSPs' experience with non-network alternatives.

The AER has amended the proposed DMIS to incorporate the option of a forgone revenue component (part B) that will apply when the form of control creates a disincentive for a DNSP to undertake demand management. The forgone revenue mechanism in part B of the DMIS is similar to the forgone revenue mechanism included in the AER's DMIA for DNSPs in New South Wales and the Australian Capital Territory for the 2009–14 regulatory control periods, and to that in the D-factor itself. The DMIS developed for Queensland and South Australia does not apply a D-factor, but allows the recovery of forgone revenue from demand management initiatives approved under the DMIA. Unlike the NSW/ACT DMIA, forgone revenue under the DMIS for Queensland and South Australia is recoverable in addition to, rather than under, the expenditure cap set on the DMIA. Revenue available under part B of the scheme does not have a specified cap. However, the actual amount that can be recovered is limited to approved revenue forgone resulting from a successful project established under part A of the scheme.

Like the D-factor and DMIA applied in New South Wales, the recovery of forgone revenue under part B is limited to non-tariff demand management initiatives approved under the DMIS. This is because tariff-based demand management programs provide price signals to electricity customers at times of peak electricity demand, for example critical peak pricing trials, and DNSPs that implement such programs may receive an increase in revenues due to the higher prices charged for electricity sales. As such, tariff-based demand management programs may not result in a DNSP foregoing revenues, despite any fall in demand associated with customer responses to higher prices. Accordingly, the AER's final DMIS allows approved DNSPs to recover forgone revenues associated only with non-tariff demand management projects.

ETSA Utilities also submitted that compensation should be allowed for revenue lost in the event of potential government policy changes to demand management over the next regulatory control period. A DNSP will not be able to recover revenue forgone as a result of demand management programs funded under the DNSP's normal regulatory allowance or reductions in revenue resulting from government policy changes in relation to demand management or more generally where the reduction in revenue results from actions which are independent of the DMIS.

The AER considers that the DMIA, in combination with the new forgone revenue component in part B of the DMIS, will provide sufficient incentives for DNSPs to implement demand management initiatives within the regulatory control period. The DMIS is designed to supplement a DNSP's approved capital and operating expenditure, to facilitate investigation and implementation of demand management strategies. The AER considers this to be a more appropriate DMIS for Queensland and South Australia.

5.6 Approval criteria under the DMIA

5.6.1 Stakeholder comments

Energex requested that the AER further clarify the approval criteria for the DMIA.[17] Energex also requested clarity regarding the extent of public influence on the debate of the merits of the initiatives. Given that the scheme is modest, Energex questioned whether the approval process and criteria assessment are proportional to the expected benefits and costs of the scheme.[18] ETSA Utilities submitted that the assessment criteria needed to be clear and unambiguous, and that the AER may need to be prepared to provide ex-ante 'approval in principle' on specific projects during the course of the determination before they are undertaken.[19]

SP AusNet submitted that the proposed scheme exposed DNSPs to an asymmetric risk in terms of recovery of the allowance, in that the AER may allow full recovery up to the cap, or may allow substantially less.[20]

5.6.2 AER response

The approval criteria for the DMIA have been established primarily to provide direction for DNSPs in determining what demand management programs to implement under the DMIS. To provide further clarity on the types of demand management initiatives recoverable under the allowance, the AER has expanded upon the criteria in its proposed DMIS, now included in section 3.1.3 of the DMIS:

1. Demand management projects or programs are measures undertaken by a DNSP to meet customer demand by shifting or reducing demand for standard control services through non-network alternatives, or the management of demand in some other way, rather than increasing supply through network augmentation.
2. Demand management projects or programs may be:
   a. broad-based demand management projects or programs—which aim to reduce demand for standard control services across a DNSP's network, rather than at a specific point on the network. These may be projects targeted at particular network users, such as residential or commercial customers, and may include energy efficiency programs; and/or
   b. peak demand management projects or programs—which aim to address specific network constraints by reducing demand on the network at the location and time of the constraint.
3. Demand management projects or programs may be innovative, and designed to build demand management capability and capacity and explore potentially efficient demand management mechanisms, including but not limited to new or original concepts.
4. Recoverable projects and programs may be tariff or non-tariff based.
5. Costs recovered under this scheme:

17 Energex, op.cit., p. 2.
18 ibid.
19 ETSA Utilities, op.cit, p. 32.
20 SP AusNet, *Proposed Demand Management Incentive Scheme for Queensland and South Australia, submission to the AER*, p. 4.

a. must not be recoverable under any other jurisdictional incentive scheme,

b. must not be recoverable under any other state or Commonwealth Government scheme, and

c. must not be included in forecast capital or operating expenditure approved in the distribution determination for the regulatory control period under which the scheme applies, or under any other incentive scheme in that determination.

6. Expenditure under the DMIA can be in the nature of capex or opex. The AER considers that capex payments made under the DMIA could be treated as capital contributions under cl. 6.21.1 of the NER and therefore not rolled into the regulatory asset base (RAB) at the start of the next regulatory control period, however the AER's decision in that regard will only be made as part of the next distribution determination.

The AER considers that these additions to the approval criteria provide DNSPs with greater certainty as to what costs will be approved by the AER for recovery under the DMIA, so that ex-ante approval will not be necessary.

The AER has had regard to Energex's concerns regarding the degree of information required by the AER when assessing a DNSP's application under the DMIS. The AER considers that its reporting requirements are necessary for the AER's assessment and are not disproportionate to the expected benefits and costs of the scheme.

5.7 Amount of the DMIA

5.7.1 Stakeholder comments

Energex submitted that a mechanism should be incorporated into the DMIA, enabling the allowance to be increased to allow innovation to continue during the regulatory control period, should the range of opportunities exceed the initial cap.[21]

The CEC submitted that the amount of the DMIA should be linked to a DNSP's forecast revenue requirements, rather than annual revenue requirements in the previous regulatory period.[22] The CEC also recommended that the use-it-or-lose-it aspect of the DMIS should be applied on an annual basis rather than over the regulatory control period as a whole. If this provision were to be relaxed, it should be limited to carrying over no more than one year of the DMIS allocation.[23]

ETSA Utilities submitted that innovative demand management projects may cause a reduction in sales, and that the associated revenue reduction should therefore be incorporated into forecasts of the total amount recoverable under the allowance.[24]

Ergon Energy confirmed its understanding that the DMIA will be capped at an amount broadly proportionate to the DNSP's average annual revenue requirement in the previous regulatory control period, with the amount provided as a fixed amount at the start of each regulatory year of the regulatory control period.

[21] Energex, op.cit., p. 1.
[22] Clean Energy Council, op.cit., p. 4.
[23] Clean Energy Council, op.cit., p. 5.
[24] ETSA Utilities, op.cit., p. 32.

5.7.2 AER response

The DMIA is a capped allowance, designed to provide incentives for DNSPs to investigate, trial and/or undertake efficient broad-based and peak demand management programs within the regulatory control period to which it applies. It is intended to be a modest allowance, and will remain capped during the regulatory period for which it is set.

The DMIA is not intended to be the primary source of recovery for demand management expenditure. Rather, the AER considers it appropriate that a DNSP recover demand management costs primarily through forecast opex and capex approved at the time of the AER's distribution determination. The recovery through regulated revenues of amounts in excess of that contemplated by the DMIA should be subject to the rigorous assessment of forecast opex and capex required by the NER. Operating expenditure attributable to non-network alternatives is explicitly excluded from the AER's EBSS so that such an overspend will not attract a negative carryover under that scheme.

The modest nature of the DMIS is also considered appropriate in light of uncertainties arising from related national policy developments including the impact of the Carbon Pollution Reduction Scheme (CPRS),[25] the Australian Energy Market Commission's (AEMC) current work on demand side response[26]as well as the AEMC's consideration of the TEC's demand management rule change proposal. The AER will monitor the development of related policy initiatives in this area and expects to be in a position to develop its national DMIS when the extent of changes to the framework within which it will operate are known.

ETSA Utilities submitted that a reduction in sales resulting from demand management initiatives under the DMIA may also cause a reduction in revenue. As discussed in section 5.3.2 of this paper, where the form of control applied to a DNSP's standard control services results in its approved regulated revenue being dependent on the quantity of electricity sold, the AER may allow the DNSP to recover forgone revenue from the implementation of demand management initiatives approved under the DMIA under part B of the scheme.

The AER considers that a DMIA determined on forecast revenue requirements would create unpredictability and uncertainty as to the amount of the innovation allowance. The amount of the allowance for each DNSP is based on the AER's understanding of typical demand management project costs, and is scaled to the relative size of each DNSP's average annual revenue allowance in the previous regulatory control period. The AER considers this to be a more workable approach and does not consider there is any sufficient reason to depart from its position on this issue.

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[25] *Carbon Pollution Reduction Scheme, Green Paper,* Australian Government, July 2008 available at http://www.climatechange.gov.au/

[26] *Review of energy market frameworks in light of climate change policies*, AEMC, October 2008 available at: http://www.aemc.gov.au/pdfs/reviews/Review%20of%20Energy%20Market%20Frameworks%20in%20light%20of%20Climate%20Change%20Policies/Scoping%20Paper.pdf

The AER notes the CEC's recommendation that the use-it-or-lose-it aspect of the DMIS be applied on an annual basis rather than over the regulatory control period as a whole. The AER considers it appropriate to allow a DNSP discretion as to the amount spent in any one regulatory year of the regulatory control period, rather than creating incentives to use the allowance in equal instalments in each regulatory year. In this way, the scheme provides an incentive to make full use of the allowance within the regulatory control period for which it is granted, while retaining flexibility to develop efficient expenditure profiles best suited to the DNSP and the needs of its users.

The DMIS allows for underspends to be retained for the length of the regulatory control period, but does not allow accumulated underspends at the end of the relevant regulatory control period to be carried into the next. The total adjustment under the scheme is calculated to ensure the DNSP will be indifferent (in net present value (NPV) terms) to the expenditure profile approved by the AER over the regulatory control period. This removes any incentive for the DNSP to defer or frontload expenditure within the regulatory control period.

5.8 Demand management reviews and reporting

5.8.1 Stakeholder comments

The CEC's submission included a paper prepared by the Institute of Sustainable Futures and Regulatory Assistance Project entitled '*Win, Win, Win: Regulating Electricity Distribution Networks for Reliability, Consumers and the Environment*'. The report recommended that DNSPs be required to publicly report annually on demand management projects in relation to: expenditure, peak demand and energy consumption reductions, value of electricity sales forgone, value of capital and operating expenditure avoided or deferred, and efforts to identify and procure cost effective demand management.

The report also stated that the AER:

- should monitor demand management data provided by DNSPs, and publish a consolidated annual review to encourage learning and allow comparison of different policies and approaches between jurisdictions, and

- should seek to inform the market on demand management by requiring DNSPs to publish detailed information annually about the current capacity of the distribution network, current and projected demand and possible options to address any emerging constraints.[27]

5.8.2 AER response

Under the annual reporting process in the DMIS, DNSPs will be required to publicly report on demand management programs as part of the DMIA approval process. Many of the annual reporting requirements recommended, such as the reporting of expenditure, peak demand, energy consumption reductions, and efforts to identify and procure cost effective demand management are addressed in the DMIS reporting

[27] Institute for Sustainable Futures & University of Technology Sydney, '*Win, Win, Win: Regulating Electricity Distribution Networks for Reliability, Consumers and the Environment*', January 2008l, p. 46.

requirements. Part B of the DMIS, if applicable to a DNSP, allows recovery in defined circumstances of revenue forgone as a result of DMIA expenditure. To recover forgone revenue, a DNSP must report on the amount of demand reductions (in MW), and provide calculations of its forgone revenue and details of the basis of any estimates used in its calculations.

The AER will not require the reporting of the value of capital and operating expenditure avoided or deferred, as this information will not be known at the time of the AER's assessment of the DMIA. The AER will, however, consider such information at the time of the DNSP's next distribution determination in considering the differences between actual and expected opex and capex in the regulatory control period in which the scheme has applied for the purposes of assessing forecasts for subsequent regulatory control periods.

5.9 Demand management in California

5.9.1 Stakeholder comments

The TEC submitted that the approach taken by the California Public Utilities Commission (CPUC) to demand management, which was first outlined in its submission to the AER's issues paper, warranted further investigation by the AER.[28]

5.9.2 AER response

As outlined in the AER's explanatory statement to its proposed DMIS, the AER's primary role, in contrast to that of the CPUC, is to apply and ensure compliance with the NER. The issues raised by the TEC relate to broader policy considerations which are outside the responsibility of the AER. It is noted, however, that a broader consideration of demand side response in the NEM is currently being conducted by the AEMC and that the Australian Government is also looking at greenhouse policies more generally.

[28] Total Environment Centre, *Demand Management Incentives for Energex, Ergon Energy and ETSA Utilities for 2010-2015*, op.cit, p.6.

6 The demand management incentive scheme

The DMIS that will be applied through the AER's distribution determination for the Queensland and South Australian DNSPs consists of two parts.

Part A—DMIA

The DMIA allows the recovery of costs for demand management projects and programs throughout the regulatory control period, subject to satisfaction of defined DMIA criteria.

Part B—Recovery of forgone revenue

Part B of the DMIS will allow recovery of forgone revenue by a DNSP as a result of reductions in the quantity of energy sold due to approved DMIA expenditure, in circumstances where the form of control applied to a DNSP's standard control services results in a DNSP's approved regulated revenue being dependent on the quantity of electricity sold.

The operation of the DMIA takes place in four key steps.

Step 1 Amount of the DMIA

The total amount recoverable under the DMIA within a relevant regulatory control period will be capped at an amount that is broadly proportionate to the relative size of the DNSP's average annual revenue requirement in the previous regulatory control period.

Step 2 Access to the DMIA

The approved amount of the DMIA will take the form of an annual ex-ante allowance provided as additional revenue for each regulatory year of the regulatory control period. The total amount of the allowance will be distributed evenly across each regulatory year of the regulatory control period.

The maximum amount that can be spent under the DMIA in any one regulatory year is uncapped, however the total amount recoverable over the regulatory control period cannot exceed the total amount of the allowance determined in step 1. That is, within the regulatory control period the DNSP has the flexibility to select an expenditure profile that suits its needs.

Step 3 Approval of expenditure under the DMIA

At the end of each regulatory year of the regulatory control period, the AER will conduct an assessment of expenditure incurred by the DNSP in the preceding regulatory year, against the criteria established in the scheme.[29] As a result of this assessment, expenditure will be either approved or rejected. The total amount of expenditure approved by the AER over the five year regulatory control period cannot exceed the total amount of the allowance determined in step 1.

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[29] The AER's review will take place once audited data becomes available for the previous regulatory year.

Step 4 Final year adjustment

Once data becomes available for the final regulatory year of the regulatory control period, the AER will calculate a carryover amount to account for:

- any amount of allowance unspent or not approved over the period
- the time value of money accrued/lost as a result of the expenditure profile selected by the DNSP
- if part B applies to the DNSP, the amount of forgone revenue as a result of approved demand management initiatives under the innovation allowance.

Given the time lag in data collection, the final carryover amount will be deducted from (added to) allowed revenues in the second regulatory year of the subsequent regulatory control period.

7 Consideration of factors set out in the NER

In developing its DMIS for Energex, Ergon Energy, and ETSA Utilities the AER must have regard to the factors prescribed in clause 6.6.3 of the NER. These are discussed in turn below.

7.1 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 costs to consumers 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 cost impacts within a regulatory control period, the benefits of which are unlikely to be obtained until later periods.

The AER considers that the DMIS will help to encourage the implementation of demand management initiatives. These initiatives are likely to provide long term efficiency gains to energy users that will outweigh any short term price increases. The DMIS is designed to:

- facilitate investigation and pursuit by DNSPs of efficient, broad-based and/or innovative demand management projects and programs that have the potential to lead to the implementation of efficient non-network solutions within and beyond the regulatory control period, and

- encourage a more complete management of the demand for standard control services.

Given that peak demand is a key driver of network capital expenditure, the DMIA could also be used to implement initiatives which result in a more efficient use of existing infrastructure and a lower level of investment in new infrastructure through either deferral of, or removal of the need for, network augmentation and/or expansion expenditures. This may in turn lead to lower demand overall, lower network investment, and consequently lower customer electricity prices.

The DMIA is a modest allowance, provided on a use-it-or-lose-it' basis. It is designed to provide additional incentives for DNSPs to conduct demand management to those present within the broader regulatory framework. Consequently, increases in customer prices as a result of the scheme's implementation are expected to be minimal. The addition of a forgone revenue recovery mechanism will in effect mirror the price outcomes that would have arisen within the regulatory control period but for the implementation of the relevant demand management project or program. As such, it is not expected to result in any increase in prices within the regulatory control period.

7.2 The effect of a particular control mechanism (i.e. control over prices as distinct from controls over revenues) on a DNSP's incentives to adopt or implement efficient non-network alternatives

In developing the DMIS, the AER has had regard to the effects that particular control mechanisms have on the incentives or disincentives for DNSPs to undertake demand management. The AER accepts that incentives for demand management may be affected by the control mechanism applied to a DNSP's standard control services.

The AER will take into account the effect on incentives for demand management when determining the control mechanism to apply to a DNSP. Under forms of control whereby the recovery of the annual revenue requirement is at least partially dependent on the quantity of electricity sold (e.g. a price cap), a successful demand management program that causes a reduction in demand may result in less revenue to a DNSP, creating a disincentive to reduce electricity sales through demand management initiatives. To counter this disincentive, the AER may allow a DNSP subject to such a control mechanism to recover any forgone revenue due to a reduction in the quantity of electricity sold that is directly attributable to the implementation of a demand management program approved under the DMIA.

The AER will assess the effect a form of control will have on a DNSP's incentive to undertake demand management projects or programs on a case-by-case basis. A likely approach to the application of part B of the DMIS to a DNSP (where such application is appropriate) will be set out in the AER's framework and approach paper, at the time that the decision on the form of control to apply to that DNSP is considered. The AER's final decision on the application of the DMIS to a DNSP will be made in its distribution determination for that DNSP.

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

In developing its DMIS, the AER has had regard to the extent that DNSPs are able to offer efficient pricing structures, such that at a particular point in the network, the price of electricity reflects the true costs of supply at that location at a particular time. Efficient pricing structures would allow prices to reflect increases in the costs of supply of electricity in times of peak demand.

The AER considers that there is scope within the current regulatory arrangements to provide efficient pricing structures, for instance in the application of peak tariffs or time-of-use tariffs to a DNSP's large customers. However, constraints on pricing structures, in particular for small customers, continue to exist. This is partly due to the failure of price signals to reach small customers, which may be addressed by the roll-out of smart meters currently being considered by the MCE.[30] The ability of a DNSP to influence small customer demand through pricing structures is also limited in jurisdictions where efficient pricing signals are impeded by retail tariff bundling or price controls.

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[30] NERA, *Cost benefit analysis of Smart Metering and Direct Load Control – Overview report for consultation*, 20 February 2008.

The AER considers that efficient pricing structures can assist the effectiveness of demand management programs, and that the DMIA will provide further incentives for DNSPs to conduct tariff-based demand management initiatives by providing an allowance for DNSPs to further investigate broad-based and/or peak demand management projects and programs.

7.4 The possible interaction between a DMIS and other incentive schemes

In developing the DMIS, the AER has had regard to the effect that the application of the scheme will have on the incentives created by the EBSS and STPIS, and vice versa.

The incentive created by the DMIS is for a DNSP to develop and implement efficient demand management initiatives.

Opex spent on non-network alternatives, including demand management expenditure, will be excluded from the actual and forecast opex amounts used to calculate carryover gains or losses under the EBSS. As such, DNSPs will not be penalised under the EBSS for increases in opex resulting from demand management expenditure not included in the distribution determination. Expenditure under the DMIA will also be excluded under the EBSS, and as such will not result in penalties for DNSPs under the EBSS.

As discussed in section 5.2 of this final decision, 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 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. However, the AER considers it important that the STPIS remains neutral in its application to network and non-network measures, and maintains that the risk associated with non-network alternatives is better placed with a DNSP than with its customers. Where aspects of performance are within a DNSP’s control, the associated risk should also lie with the DNSP.

The AER does not consider that the application of the DMIS will negatively interact with the incentives created by other incentive schemes, or that the EBSS and STPIS will hinder the effectiveness of the DMIS.

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

In developing the DMIS, the AER has had regard to the extent to which customers are willing to pay for any increase in costs that may arise from the implementation of the scheme.

In light of this, the AER considers that a modest scheme such as the DMIS, the impacts of which on customer prices are likely to be minimal, is appropriate at this time. The scheme is expected to encourage DNSPs to undertake demand management initiatives which will provide long term efficiency gains to energy users.

Appendix A: Submissions received on proposed DMIS

The following parties provided submissions on the proposed DMIS:

- Clean Energy Council
- Energex
- Ergon Energy
- ETSA Utilities
- SP AusNet
- Total Environment Centre

Copies of these submissions are available on the AER's website at www.aer.gov.au.