Explanatory statement

Proposed demand management incentive scheme

Aurora Energy

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AUSTRALIAN ENERGY REGULATOR

The closing date for submissions on the proposed demand management incentive scheme (DMIS) for Aurora Energy is 9 August 2010.

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Contents

Shortened forms ..... **iv**

1 Introduction ..... **v**

2 Rules requirements **1**

3 Reasons for the demand management incentive scheme **2**

4 AER preliminary positions and proposed DMIS **4**

4.1 Proposed scheme 4

5 Consideration of factors set out in the NER **6**

Shortened forms

ACT	Australian Capital Territory
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
capex	capital expenditure
DMIS	demand management incentive scheme
DNSP	distribution network service provider
EBSS	efficiency benefit sharing scheme
GWh	Giga watt hours
NEL	National Electricity Law
NEM	National Electricity Market
NER	National Electricity Rules
NSW	New South Wales
opex	operating expenditure
STPIS	service target performance incentive scheme

1 Introduction

The AER is responsible for the economic regulation of distribution network service providers (DNSPs) in the National Electricity Market, in accordance with the National Electricity Rules (NER).

Chapter 6 of the NER allows the AER to develop and publish a DMIS. Unlike the service standards performance incentive scheme (STPIS) and the efficiency benefit sharing scheme (EBSS), the AER is not required to develop a DMIS.

Demand management refers to the implementation by DNSPs of strategies which address growth in demand, and are envisaged as an alternative to network investment. Successful demand management mechanisms can defer, or even remove, the need for network augmentation which would otherwise be required to relieve network constraints (often experienced in peak periods). This can have positive impacts where inefficient peaks are reduced and more efficient use of existing network assets occurs, resulting in lower costs for DNSPs, and ultimately, lower prices for network users.

The DMIS is designed to incentivise DNSPs to implement such efficient non-network alternatives, and/or to manage expected demand for distribution services through other avenues. DNSPs can use the DMIS to fund demand management mechanisms, such as incentives for customers to change their demand patterns, operational efficiency programs, or load control technologies. The DMIS can also be used to fund research and development of new non network alternatives for implementation in the future.

However, to ensure that application of a DMIS to Aurora Energy has been considered, a consultation process has been initiated on the development of a proposed DMIS to apply 2012–13 to 2016–17 regulatory control period. This is intended to be similar in substance and form to DMIS developed for other Australian jurisdictions. In developing a DMIS for each of the above jurisdictions, the AER consulted extensively with stakeholders in accordance with the public consultation requirements in the NER. As with the proposed Tasmanian DMIS, a proposed DMIS and accompanying explanatory statement for each jurisdiction were released publicly for comment prior to the finalisation and publication of the schemes for those jurisdictions.

The proposed DMIS for Aurora Energy is based on the DMIS developed for South Australia and Queensland, and Victoria.

This explanatory statement sets out the AER's consideration of issues that it has had regard to in developing its proposed DMIS for Aurora Energy, reasons for developing a DMIS, and an explanation of how the DMIS is intended to work.

The AER has released a preliminary positions paper on the framework and approach for the Aurora Energy at the same time as this explanatory statement and accompanying proposed DMIS. The consultation for the DMIS is intended to run concurrently with the consultation for the framework and approach paper. However, the final DMIS for Aurora Energy will be published by 15 October 2010 (in accordance with requirements under the NER), whilst the final framework and approach paper will be published by 30 November 2010.

Interested parties may want to make submissions on both the development of the proposed DMIS and the preliminary positions paper for the Tasmanian framework and approach, which deals with the application of the proposed DMIS in Tasmania.

Submissions on the *development* of the proposed DMIS and its *application* in Tasmania may be provided separately or in one submission. **The closing date for all submissions is 9 August 2010.** [1]

[1] AER's preliminary position paper on the framework and approach for Aurora Energy.

2 Rules requirements

The DMIS has been developed by the AER to comply with the relevant requirements prescribed under 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 distribution consultation procedures in Part G of Chapter 6 of the NER require the AER to publish a proposed DMIS, explanatory statement and invitation for submissions. Stakeholders must be allowed at least 30 business days to make submissions to the AER. Within 80 business days of publishing the proposed DMIS the AER must publish its final decision and DMIS. This explanatory statement and proposed DMIS have been prepared to meet the AER's obligations under clause 6.16(b) of the NER.

3 Reasons for the demand management incentive scheme

The AER's DMIS for Aurora Energy is designed to complement the broader regulatory framework by providing incentives for DNSPs to carry out efficient non-network alternatives, and encourage DNSPs to explore ways to manage expected demand for distribution services through means other than network augmentation. By undertaking demand side management, the need for network augmentation can be reduced or deferred.

The DMIS, however, is not intended to be the sole, or even the primary, source of recovery of expenditure associated with demand management initiatives undertaken by DNSPs. To this end, the AER considers that the primary source of funding for demand management programs in a regulatory control period should be the forecast opex and capex approved in the distribution determination.

Clauses 6.5.6(e) and 6.5.7(e) of the NER require that, in determining whether it is satisfied with a DNSP's forecasts of capex and opex, the AER must have regard to the extent to which the DNSP has considered and made provision for non-network alternatives. These clauses do not oblige DNSPs to demonstrate that they have had specific regard to demand management alternatives to network-related capex and opex projects. However, an allowance for expenditure on demand management initiatives can be provided as part of a DNSP's forecast opex or capex at the time of making a distribution determination. For this to occur, the AER must be satisfied that a DNSP's expenditure proposals reasonably reflects the forecast capex or opex criteria in chapter 6 of the NER.

The AER notes that there are existing incentives for DNSPs to conduct demand management within the current regulatory framework. For instance, the regulatory regime provides a financial incentive to undertake demand management expenditure that defers capex included in the forecast approved at the time of the distribution determination, to the extent that the benefits of the capex underspend outweigh the demand management expenditure required to achieve that deferral.

Conversely, the regulatory framework may also provide some disincentives to undertake demand management. Most notably, non-network solutions may offer a lower (inherent and/or perceived) level of reliability when compared to network solutions, which has implications for a DNSP's network reliability obligations and ability to meet service performance targets.

The objective of the AER's proposed 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.[2] The DMIS complements approved capital and operating expenditure incentives for demand management, by facilitating investigation of viable and efficient demand management strategies so that DNSPs can improve their demand management capabilities. It will allow DNSPs to implement efficient non-network alternatives or to manage the expected demand for standard control services within and/or beyond the regulatory control period in which

[2] NER, Clause 6.6.3(a)

the scheme is applied. The scheme is therefore designed to provide further financial capacity to a DNSP to examine demand side alternatives beyond that which may be readily captured in its core revenue proposal.

The AER proposes to apply a DMIS in the form of a demand management innovation allowance in Tasmania for the 2012-13 to 2016-17 regulatory control period.

4 AER preliminary positions and proposed DMIS

The proposed DMIS consists of an ex ante demand management innovation allowance (DMIA) to be provided as a fixed amount 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 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. The AER proposes this amount to be $400 000 for Aurora Energy.

The demand management innovation allowance will be provided on a use-it-or-lose-it basis, and is in addition to any opex and capex allowances for demand management projects approved in the AER's distribution determination for a DNSP. The DMIA is part of the DMIS, which can be applied alone or on conjunction with the foregone revenue component of the DMIS.

4.1 Proposed scheme

The AER proposes to apply a DMIS in the form of a demand management innovation allowance in Tasmania in the 2012-13 to 2016-17 regulatory control period. The demand management innovation allowance aims to encourage DNSPs to undertake efficient broad-based demand management which can assist in providing long-term benefits to consumers and DNSPs by allowing recovery of approved costs throughout the regulatory control period.

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.

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 under the DMIA in the preceding regulatory year, against the criteria established in the scheme.[3] 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.

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.

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

5 Consideration of factors set out in the NER

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

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 may not 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 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, more efficient 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 forgone revenue recovery component on the DMIS 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.

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.

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.

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.

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.

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 lie with and be managed by 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.

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.