Final Decision

Demand Management Incentive Scheme

Aurora Energy

2012-13—2016-17

October 2010

Contents

Shortened forms

AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
capex	capital expenditure
CPRS	carbon pollution reduction scheme
CUAC	Consumer Utility Advisory Centre
DMIA	demand management innovation allowance
DM	demand management
DMIS	demand management incentive scheme
DNSP	distribution network service provider
EBSS	efficiency benefit sharing scheme
EDPR	Electricity Distribution Price Review
ESCOSA	Essential Services Commission of South Australia
ETSA	ETSA Utilities
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
OIC	Order In Council
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) permits the Australian Energy Regulator (AER) to develop and publish a demand management incentive scheme (DMIS). The DMIS provides incentives for distribution network service providers (DNSPs) to seek out and undertake alternatives to traditional network augmentation in response to increases in peak or general demand.

The DMIS is designed to incentivise the implementation of efficient non-network alternatives, or to manage the expected demand for standard control services in some other way. This can occur through a variety of measures which seek to either defer capital expenditure that would otherwise be required to respond to network demand, or, in some cases, remove the need for that capital expenditure all together.

The AER has developed a DMIS to apply to Aurora Energy in the context of the preliminary positions framework and approach paper for DNSPs in Tasmania, published on 25 June 2010.

On 25 June 2010, the AER also published an explanatory statement and proposed DMIS to apply to Aurora Energy over the 2012 -13 – 2016-17 regulatory control period. The AER received two submissions on the proposed DMIS from the following parties:

- Aurora Energy; and
- Total Environment Centre (TEC)

The submissions are available on the AER's website, www.aer.gov.au

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

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] An efficient non-network alternative is one that seeks to deliver reductions in peak or off peak demand and is envisaged as an alternative to network investment.

In developing and implementing a DMIS, the AER must have regard to the following:[2]

- 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.

The distribution consultation procedures set out at rule 6.16 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 to apply to Aurora Energy and the accompanying explanatory statement were published for consultation on 25 June 2010, with submissions closing on 9 August 2010.

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1 NER, clause 6.6.3 (a)

2 NER, clause 6.6.3 (b)

3 Reasons for the demand management incentive scheme

The objective of the AER's DMIS is to provide funding for DNSPs within the NEM 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 even the primary, source of recovery of demand management expenditure. For this reason, the AER has provided a relatively modest amount under the DMIS.

The primary source of funding for demand management initiatives in a regulatory control period should be the forecast operating expenditure (opex) and capital expenditure (capex), assessed under the requirements of clauses 6.5.6 and 6.5.7 of the NER. These clauses also 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.[4]

The DMIS is provided to DNSPs as a mechanism to encourage the consideration by DNSPs of more innovative, perhaps untested, non-network alternatives, which may not be approved under the capex and opex assessment clauses in the NER.

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. This incentive exists because capital expenditure is rolled into regulatory asset base (RAB), and subsequently, a return on and of that capex is earned by the DNSP.

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, and gives rise to the need for incentives to encourage the consideration by DNSPs of non-network solutions.

The DMIS complements the existing approved capex and opex incentives for demand management, by facilitating further investigation into efficient and viable non-network strategies so that DNSPs can improve their demand management capabilities in the longer term. It is envisaged that DNSPs will use this DMIS to fund the investigation of innovative, new opportunities in the field of demand management. It also allows DNSPs to 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.

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3 NER, cl. 6.6.3(a).

4 NER, cll. 6.5.6(e)(10); 6.5.7(e)(10)

4 AER's proposed DMIS

On 25 June 2010, the AER published a proposed DMIS to apply to Aurora Energy in the regulatory control period commencing 1 January 2012. Accompanying the proposed DMIS was an explanatory statement which contained background information on demand management and non-network solutions generally, and also information setting out how the DMIS would apply in the forthcoming regulatory control period.

The proposed DMIS consists of an ex-ante demand management innovation allowance (DMIA), to be provided as a fixed amount of revenue at the commencement of each regulatory year in the regulatory control period. The total amount recoverable under the allowance within a regulatory control period was capped at an amount broadly proportionate to the size of Aurora Energy's average annual revenue requirement in the current regulatory control period. This amount is distributed evenly across each regulatory year of the regulatory control period as an annual allowance. The AER proposed this amount to be $400 000 for Aurora Energy.

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

The AER received two submissions on the proposed DMIS from Aurora Energy and Total Environment Centre respectively.[5] The AER's consideration of the issues raised in submissions put forward by the parties is set out in section 5 of this final decision.

[5] Aurora Energy's submission also raised issues on the AER's framework and approach process. TEC's submission related only to the DMIS.

5 Issues raised in submissions and the AER response

5.1 Demand management in the NEM

5.1.1 Stakeholder comments

The TEC submits that the proposed DMIA is too low and runs counter to the long term interests of consumers. The TEC estimates that around one third of network spending could be deferred or avoided if the full potential of demand management was captured.

In response to the AER's requirement that DNSPs satisfactorily demonstrate that efficient non-network alternatives to capex and opex have been properly considered in the development of forecasts, the TEC stated:

> In reality, there is no such demonstration of proper consideration and no such requirement from the AER for networks to do so. It is clear, for example, that DM has not been properly considered by Aurora Energy, as evidenced by its most recent reports into major upgrades of the Hobart Eastern Shore Region ($49m), the Launceston Area ($47m) and the Kingston Area ($40.6m). [6]

The TEC makes reference to the AER's contention that the regulatory framework provides some disincentives to undertake demand management.

5.1.2 AER response

The TEC raises the concern that there is no demonstration of proper consideration of demand management and no requirement for networks to undertake demand management. The TEC refers to Aurora Energy's 'lack of consideration' of demand management alternatives in three particular capital expenditure upgrades that have occurred on Aurora Energy's network within the current regulatory control period. The three upgrades TEC specifically refers to are the Hobart Eastern Shore region, the Launceston area and the Kingston area. The AER notes that TEC has provided no substantiation for its claim that one third of network capex could deferred or avoided if demand management was fully utilised. Even this were true, under the NER the AER can only incentivise, rather than compel service providers to undertake demand management on their networks.

At a high level, the AER notes that several issues put forward by the TEC relate to matters that the AER will consider as part of the determination process, in response to the Aurora Energy's regulatory proposal (which will be received in June 2011). The AER's assessment of the capital and operating expenditure allowances contained in that proposal will involve an examination of non network alternatives as required by the NER. The AER notes that the upgrades referred to would have been considered and approved under the Tasmanian regulatory framework, and not the NER and NEL framework.

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[6] Total Environment Centre, *Submission to the to Australian Energy Regulator proposed Demand Management Incentive Scheme and Framework and approach paper for Aurora Energy* submission to the AER, p. 1.

The NER does not have an analogous regulatory test for distribution networks. However, the NER provides that the AER must assess operating and capital expenditure under a suite of considerations contained in clause 6.5.6 and 6.5.7 of the NER. One of those considerations requires the AER to have regard to:

> the extent the *Distribution Network Service Provider* has considered, and made provision for, efficient non-network alternatives.[7]

At the time of making its distribution determination, the AER will have considered the extent to which Aurora Energy has considered viable non-network alternatives in forecasting operating and capital expenditure for the next regulatory period. Forecast operating and capital expenditure for next regulatory control period will reflect this.

5.2 Amount of a DMIA

5.2.1 Stakeholder comments

The AER notes that stakeholders generally did not raise any concerns or in principle opposition to the development of a DMIS for Aurora Energy. No stakeholders raised issues with the interaction between the DMIS and the revenue cap form of control (and subsequently, no concerns were raised with non-inclusion of a foregone revenue component of the DMIS).

The TEC and Aurora Energy both considered that a higher allowance would be more appropriate.[8]

5.2.2 AER response

While submissions did not disagree that DMIS should be established, there was a diversity of views about the quantum of the allowance. The AER considers that the quantum of the allowance is an issue most appropriately dealt with in considering the application of the scheme, rather than in establishing the content and form of scheme. The AER will consider these submissions in finalising its likely position on the amount of the DMIA in its forthcoming framework and approach paper.

7 NER, cl. 6.5.6 (e) (10), cl. 6.5.7 (e) (10).

8 ibid., p. 33.

6 The demand management incentive scheme

The DMIS that will be applied through the AER's distribution determination for Aurora Energy consists of:

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.

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 as part of the AER's regulatory information order (RIO).[9] 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

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

- 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 Aurora Energy the AER must have regard to the factors prescribed in cl. 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 modest, and provided on a ‘use-it-or-lose-it’ basis. At this stage, the AER does not consider this modest allowance to be overly burdensome on end users, who bear the cost of this in the long term. As information is garnered about customers willingness to pay for increased demand management projects and programs, and further research and development is undertaken, the AER may consider broadening the scope of the DMIA in a future national scheme.

The DMIA 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 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.

Aurora Energy is subject to a revenue cap form of control in the current regulatory period. The AER indicated, in its preliminary positions paper, that this form of control would continue in the 2012-2017 regulatory control period.[10] This means that its revenue is not necessarily linked to the throughput of energy (unlike, for example, a weighted average price cap, where revenue is dependant directly on the volume of energy sold). For this reason, the AER does not consider that the form of control (which seeks to potentially reduce throughput) provides a disincentive for Aurora Energy to undertake demand management initiatives. .

7.2 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 during times of peak demand.

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.

7.3 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.

[10] AER, *Framework and approach for Aurora Energy, preliminary positions paper,* p. 76

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 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.

7.4 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. The AER notes that, at present, no substantive reports or studies have been undertaken on customer willingness to pay for demand management in the NEM.

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:

- Aurora Energy
- Total Environment Centre

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