Determinations

Early application of the Demand Management Incentive Scheme

Endeavour Energy and Ausgrid

March 2019

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Contents

Shortened forms

Shortened form	Extended form
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
capex	capital expenditure
DMIA	Demand management innovation allowance
DMIAM	Demand management innovation allowance mechanism
DMIS	Demand management incentive scheme
NER	National Electricity Rules
opex	operating expenditure

1 Summary

The Australian Energy Regulator (AER) is responsible for the economic regulation of electricity transmission and distribution systems in all Australian states and territories, with the exception of Western Australia.

In December 2017, we published an improved Demand Management Incentive Scheme (DMIS) to encourage distribution businesses to find lower-cost options to investing in network solutions. The new DMIS achieves this by encouraging distribution businesses to undertake efficient expenditure on non-network options relating to demand management. To enable a greater and more timely uptake of the new DMIS, we initiated, in December 2017, a rule change request to the Australian Energy Market Commission (AEMC) to amend the National Electricity Rules (NER) to allow the early application of the new DMIS.

On 3 April 2018, AEMC published the final rule determination to allow a distributor to seek application of the new DMIS during its current regulatory control period by applying to the AER. The rule commenced on 10 April 2018.[1]

Two electricity distributors in New South Wales have made applications to the AER to bring forward their projects under the new DMIS:

- Endeavour Energy submitted an application on 20 December 2018.
- Ausgrid submitted its application on 8 January 2019.

On 11 January 2019, we invited energy consumers and other interested parties to make submissions on these two applications. One submission, from the Total Environment Centre, was received. The TEC supported both applications.

We consider that the applications from Endeavour Energy and Ausgrid meet the conditions for approval to commence their new DMIS in their current regulatory periods. This paper sets out our reason for these decisions.

[1] AEMC, *Rule determination - National Electricity Amendment (Implementation of Demand Management Incentive Scheme) Rule 2018*, 3 April 2018. p. 7.

2 About the new DMIS

Distribution businesses can manage demand on their networks to reduce, delay or even avoid the need to install, replace or upgrade expensive network assets. Network assets include equipment like poles, wires, transformers and substations. When used effectively, managing demand to avoid incurring these costs can reduce upward pressure on network charges, which make up about half the cost of electricity bills.

On 14 December 2017, we published our new DMIS and Demand Management Innovation Allowance Mechanism (DMIAM). These complement our ongoing reforms targeting consumer choice and more efficient network pricing outcomes. These include our work on tariff reform, metering contestability, ring fencing and strengthening the transparency and efficiency of replacement expenditure.

The DMIS contains three elements:[2]

- a cost uplift on expected costs of efficient demand management projects
- a net benefit constraint, to ensure the incentive payment for any project cannot be higher than that project's expected net benefit
- an overall incentive constraint, which limits the total incentive in any year to one per cent of the distributor's allowed revenue for that year.

Managing demand on electricity networks can increase the reliability of supply and reduce the cost of supplying electricity. Often, electricity consumers are empowered to manage demand via price signals and enabling technology.

Price signals or financial incentives can reward consumers for using electricity in a way that allows network businesses to keep their costs down. These signals or incentives may come in the form of things like cost-reflective tariffs, congestion pricing, and rebates. Enabling technology often complements price signals by empowering consumers' use of electricity in a way that allows network businesses to keep their costs down. This technology may include things like advanced metering technology, demand response enabling devices, and energy monitoring apps.

The new DMIS only provides incentives for the implementation of demand management projects that are efficient and contribute, partially or wholly, to resolving a network constraint. In deciding whether a project is efficient, we require distribution businesses to test the demand management services market. This will increase transparency, promote competition and put downwards pressure on electricity prices, benefiting the whole community. This is because distribution business can only benefit from incentives if they address the network constraint in the most efficient way available.

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2 AER, *Demand management incentive scheme*, *Electricity distribution network service providers*, December 2017.

Encouraging the distribution businesses to make more efficient investment decisions will help distribution businesses meet consumers' demand at the lowest cost. By providing an incentive, the distribution businesses will more actively seek out opportunities to use demand management efficiently. This should help develop the industry and make managing demand even more cost effective for the distributors as it becomes business-as-usual.

This incentive structure should encourage best-practice network planning that will deliver value to consumers via lower electricity prices. We believe our incentive scheme will achieve this because distribution businesses will be:

- selecting efficient projects that deliver the most value to consumers when solving network constraints, regardless of whether these projects constitute a demand-side or supply-side solution
- asking third parties to propose demand management solutions, and forming contracts with parties that propose solutions that deliver the most value to consumers.

The application of the DMIS should also have flow-on effects. As the demand management industry advances as a whole, it is likely that the distributors will become better at managing the risks and minimising the costs of these solutions, delivering additional consumer benefits.

2.1 The early application of the DMIS

On 14 December 2017, we submitted a rule change request to the AEMC seeking to allow distribution network service providers to apply to the AER for early application of the revised DMIS.

Before the proposed rule change, the NER did not allow for application of the new DMIS until the commencement of the next regulatory control period. However, waiting until the next regulatory control period would result in customers having to forgo earlier opportunities to benefit from the new DMIS, particularly as the next regulatory control period for some jurisdictions is two to three years away.

Application of the new DMIS midway through a regulatory control period was previously considered to require a re-opening of current distribution determinations, imposing considerable costs on distributors. Our rule change request highlighted that the design of a new DMIS could be applied earlier without requiring a re-opening of the current distribution determinations.

Under the new rules, a distributor may seek application of the DMIS during its current regulatory control period by submitting a proposal to the AER which includes:

- the proposed start date for the application of the DMIS
- a description of how the early application of the DMIS will assist the distributor in undertaking efficient expenditure on relevant non-network options relating to demand management
- such other information that the distributor considers relevant.

2.2 Legislative requirements in making this determination

Chapter 11 of the NER sets out the implementation process for a distributor to apply to the AER for the application of the revised DMIS during its current regulatory control period. The new rules under Chapter 11 include obligations on the AER in relation to the publication and consultation on a distributor's proposal, making of the final decision and notice of the final decision. The rule also provides discretion to the AER in permitting early application for a distributor and the date from which the new DMIS applies.[3]

Under clause 11.106.3 (e) of the NER, we must make a final decision on whether and how to apply the revised new DMIS to a distributor who has sought to apply the revised DMIS during its current regulatory control period. Under clause 11.106.3 (f), our final decision must:

(a) include a decision on the start date

(b) set out reasons for the decision, and

(c) set out any amendments to the revised demand management incentive scheme necessary to give effect to the application of the revised demand management incentive scheme.

Under clause 11.106.3 (h) of the NER requires that, in making its final decision, the AER must:

- consider the proposals submitted and any written submissions made on the proposal, and
- have regard to the factors that clause 6.6.3(c) requires the AER to take into account in applying the DMIS[4].

[3] Cl 11.106.3 of the NER.

[4] Cl 6.6.3(c): In developing, and applying, any demand management incentive scheme, the AER must take into account the following:

(1) the scheme should be applied in a manner that contributes to the achievement of the demand management incentive scheme objective;

(2) the scheme should reward Distribution Network Service Providers for implementing relevant non-network options that deliver net cost savings to retail customers;

(3) the scheme should balance the incentives between expenditure on network options and non-network options relating to demand management. In doing so, the AER may take into account the net economic benefits delivered to all those who produce, consume and transport electricity in the market associated with implementing relevant non-network options;

(4) the level of the incentive;

(i) should be reasonable, considering the long term benefit to retail customers;

(ii) should not include costs that are otherwise recoverable from any another source, including under a relevant distribution determination; and

(iii) may vary by Distribution Network Service Provider and over time.

(5) penalties should not be imposed on Distribution Network Service Providers under any scheme.

Clause 11.106.3(g) of the NER specifies that the start date for the application of the revised demand management incentive scheme must not be earlier than 24 months prior to the end of the current regulatory control period.

(6) the incentives should not be limited by the length of a regulatory control period, if such limitations would not contribute to the achievement of the demand management incentive scheme objective; and

(7) the possible interaction between the scheme and:

(i) any other incentives available to the Distribution Network Service Provider in relation to undertaking efficient expenditure on, or implementation of, relevant non-network options;

(ii) particular control mechanisms and their effect on a Distribution Network Service Provider's available incentives referred to in sub-paragraph (i); and

(iii) meeting any regulatory obligation or requirement.

3 Distributors' applications

We received applications from Endeavour Energy and Ausgrid to apply the new DMIS under clause 11.106.3 of the NER.

3.1 Endeavour Energy's application

On 20 December 2018, Endeavour Energy (Endeavour) applied for the early application of the DMIS, with a proposed effective start date of 1 April 2019.[5] This is ahead of the 1 July 2019 start date of Endeavour's next regulatory control period.

Endeavour submitted that in recent years, it has worked with 180 major customers over 11 demand management programs to implement over 280 initiatives. These programs have focused on reducing the impact of industrial and commercial loads to manage network constraints.

Endeavour stated that it has also undertaken residential load demand management programs, and has found these more challenging due to the large number of participants required, the high level of interaction needed to understand customers, and the reluctance of customers to participate. However, Endeavour believes these programs are necessary given the increasing take up of photovoltaic (PV) generation and energy storage, and the growth in residential customers within its network area.

Endeavour will also implement a demand management program for its Oakdale Industrial Development Area to identify options to defer or avoid the construction of a proposed zone substation in South Erskine Park. This program involves conducting free energy audits and offering financial incentives to customers. Endeavour expects to begin phase one of this project during April 2019.

3.2 Ausgrid's application

On 8 January 2019, Ausgrid applied for the application of the new DMIS, with a proposed effective start date of 31 March 2019.[6] This is ahead of the 1 July 2019 start date of Ausgrid's next regulatory control period.

Ausgrid submitted that it has identified eligible projects it needs in the summer of 2019–20[7] and beyond. As the business commits expenditure in advance of the network need date, these projects may receive a formal expenditure commitment in advance of the start of the next regulatory control period. Ausgrid therefore is requesting early application of the DMIS to ensure its eligible projects targeting a 2019–20 need date are eligible for the incentive scheme.

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5 Endeavour Energy, *Request for early application of Demand Management Incentive Scheme*, 20 December 2018.

6 Ausgrid, *Request for early application of Demand Management Incentive Scheme*, 8 January 2019.

7 around December 2019 to February 2020

Ausgrid expects that its projects associated with local demand growth on the 11kV network are the projects where a viable non-network alternative may achieve formal expenditure commitment in advance of 1 July 2019. The distributor states that these projects are typically small scale (less than $1 million) and represent a challenging environment for non-network options due to the highly localised need area and small available budget for the non-network solutions.

Ausgrid states that early application of DMIS may lead to its deferral of network investment for one or more years leading to material savings for customers.

4 AER's assessment

The DMIS is intended to encourage distribution businesses to find lower-cost options to investing in network solutions. The incentive scheme achieves this by encouraging distribution businesses to undertake efficient expenditure on non-network options relating to demand management.

Reasons for our decision

In making this decision, we are required to:

- review the proposals submitted by Endeavour Energy and Ausgrid
- consider written submissions made on the proposals, and
- have regard to the factors in clause 6.6.3(c) of the NER.[8]

We consider the proposals by Endeavour Energy and Ausgrid describe projects that are likely to contribute to the achievement of the scheme objective, and have the potential to meet the specific requirements of the new DMIS.

We invited stakeholders to provide submissions on Endeavour Energy's and Ausgrid's applications. We received one submission from Total Environment Centre (TEC).TEC submitted that it supports Endeavour Energy's and Ausgrid's early application of DMIS and their proactive role in overcoming the historically low uptake of DM and other non-network solutions in the national electricity market.[9]

In making the new DMIS in 2017, we took into account the matters set out in clause 6.6.3 of the NER. Hence, we consider that in applying the new DMIS, without any amendments, to Endeavour Energy and Ausgrid we have had regard to the factors specified in clause 6.6.3(c).

Starting dates of the early application of the new DMIS

Our decision is to apply the new DMIS[10] to the two distributors from the respective start date until the end of their respective current regulatory control periods, without modification. We have considered materials submitted to us by the applicants.

For the start dates of the application of the new DMIS, the rules provide that the distributor can propose a start date.[11] Further, the rules provide that the AER can make a decision on a start date which is different to the proposed start date, provided

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[8] NER, cl. 11.106.3(h)

[9] Total Environment Centre, *Early application of the new Demand Management Incentive Scheme: Applications by Endeavour Energy and Ausgrid*, 14 January 2019.

[10] AER, *Demand management incentive scheme*, *Electricity distribution network service providers*, December 2017.

[11] The proposed date must not be earlier than the later of: 60 business days after the proposal is submitted, or 24 months prior to the end of the current regulatory period. (cl 106.3(b) of the NER).

that the start date is not earlier than 24 months prior to commencement of the distributor's next regulatory control period.[12] We note that we have not received any submission regarding the commencement dates. Our decision is to accept the distributors' proposed respective commencement dates, which are:

- for Endeavour Energy, the start date will be 1 April 2019 as proposed; and
- for Ausgrid, the start date will be 31 March 2019 as proposed.

The next regulatory control periods for both distributors commence on 1 July 2019.

4.1 Annual compliance verification of DMIS expenditures

We will assess the demand management projects and their expenditures in accordance with assessment criteria prescribed by the revised DMIS. Appendix A presents the compliance reporting requirements under the revised DMIS.

All applicants will be required to provide supporting documents each year as required under the new DMIS to prove that the expenditures meet the minimum requirements. The AER will determine the eligibility and specific incentive payments for each project according to the criteria specified in the new DMIS.

12 Cl 106.3(g) of the NER.

5 AER's determinations

This section outlines the AER's DMIS determinations for each distributor.

5.1 Endeavour Energy

In accordance with clause 11.106.3 (e) of the National Electricity Rules (NER), our final decision is to apply the new DMIS[13] to Endeavour Energy for the period of 1 April 2019 to 30 June 2019, without any modification.

5.2 Ausgrid

In accordance with clause 11.106.3 (e) of the National Electricity Rules (NER), our final decision is to apply the new DMIS[14] to Ausgrid for the period of 31 March 2019 to 30 June 2019, without any modification.

13 AER, *Demand management incentive scheme*, *Electricity distribution network service providers*, December 2017.

14 AER, *Demand management incentive scheme*, *Electricity distribution network service providers*, December 2017.

A DMIS compliance reporting requirement

Compliance reporting

(1) For each **regulatory year**, a **distributor** must submit a **demand management compliance report** to the **AER** no later than 4 months after the end of that **regulatory year** to which the reported data pertains.

(2) The **compliance report** must be reviewed in accordance with the assurance requirements set out in the annual reporting **regulatory information notice** applicable to the **distributor**, at the **distributor**'s expense and by a person permitted to conduct such a review under that **regulatory information notice**.

(3) Each **compliance report** must include two parts—Part A and Part B. Part A includes information on **committed projects** and Part B contains information on projects that the **distributo**r has identified as **eligible projects**.

(4) Each **compliance report** must include the following information in Part A:

(a) The volume of **demand management** delivered by **committed projects** in that **regulatory year** (that is, the **kVA** per year of demand that a **distributor** controlled (either directly or indirectly) by means of **committed projects** in that **regulatory year**).

(b) The **distributor**'s estimate of the benefits realised from the **demand management** delivered by **committed projects** in that **regulatory year**.

(c) The **total financial incentive** that the **distributor** has assessed that it is able to claim in accordance with clauses 2.2, 2.3 and 2.5 of this **scheme,** for that **regulatory year**.

(5) For each **eligible project** that a **distributor** identifies as a **preferred option** in a **regulatory year**, Part B of the **compliance report** relating to that **regulatory year** must include the following information about that **eligible project**:

(d) In present value terms, the expected costs and benefits that the **distributor** determined, in accordance with clause **Error! Reference source not found.**, that the **eligible project** would deliver to electricity consumers.

(e) A description of the responses that the **distributor** received to either its **RIT–D** or its **request for demand management solutions** under the **minimum project evaluation requirements** (as relevant) including, for each response:

i. a short description of the proposed project;

ii. the proposed costs and deliverables put forward in the response to the **request for demand management solutions**; and

iii. for any response that proposed a potential **credible option**, the **distributor**'s estimate of that project's **relevant net benefit**.

(f) Identify whether, if the **distributor** decides (or has decided) to proceed with the project as a **committed project**, it is likely that this will occur via a **demand management contract,** or whether this is likely to occur via a

demand management proposal. If the former, the **compliance report** must also identify the proposed party or parties to the **demand management contract**.

(g) The expected costs of delivering **demand management**, by means of the **eligible project**, that the **distributor** used as an input into its assessment, under clause 2.2, that the project is an **efficient non-network option** in relation to **demand management**.

(h) the **kVA** per year of network demand that the **distributor**:

i. would be able to call upon, influence, dispatch or control if the project is implemented (that is, the **kVA** per year of **demand management** capacity); and

ii. expects to call upon, influence, dispatch or control, based on its probabilistic assessment of future demand, if the project is implemented.

(6) Where a **distributor** decides, in a **regulatory year**, to defer or not proceed with an **eligible project** that it has previously decided (either in that **regulatory year** or in a previous **regulatory year**) to proceed with as a **committed project**, the **distributor** must identify that decision and project in its **compliance report** for that **regulatory year**.

(7) Where a **distributor** decides, in a **regulatory year**, to proceed with a **network option** to meet an **identified need** that it had previously decided to meet by means of a project that was a **committed project**, the **distributor** must identify that **network option** and **committed project** in its **compliance report** for that **regulatory year**. The **project incentive** for an identified **committed project** will:

(a) not be payable, by application of clause 2.6(2), if the **distributor** did not undertake **demand management** expenditure.

(b) be returned via a reduction in the **total financial incentive** by the amount calculated in accordance with equation 1, if the **distributor** undertook some **demand management** expenditure, but terminated the **committed project** earlier than the end date it assumed when calculating expected **demand management** costs in applying clause 2.2(4).

Equation 1: Project *i* returnable incentive on early termination in year *x*

$$Returnable\ incentive_{i,x} = \sum_{t=x}^{T} \delta_v \times E[PV\ DMcost_{i,t}]$$

Where:

- δ_v is the effective cost uplift to project *i*, calculated as $\frac{PV\ incentive_i}{E[PV\ DMcost_i]}$. For clarity, δ_v will equal d_v if $S_i = 0$ and the constraints in **Error! Reference source not found.** and 3 do not bind.
- *T* is the committed end date for project *i*, and *x* is the date the distributor terminated committed project *i*.

- PV is the present value at time t, which aligns with time t used in **Error! Reference source not found.**. A parameter following PV is in real dollars at time t.

(8) The **confidentiality guideline** applies to the information contained in **compliance reports**. If the **distributor**'s **compliance report** contains confidential information, the **distributor** must also provide a non-confidential version of the report in a form suitable for **publication**. The **AER** may publish the **compliance report** (or the non-confidential version of the **compliance report**, if applicable) on its website.