



Attachment 13

Demand Management Innovation Allowance Mechanism Revenue Proposal 2023-24 to 2027-28

31 JANUARY 2022

Company Information

ElectraNet Pty Ltd (ElectraNet) is the principal electricity transmission network service provider (TNSP) in South Australia.

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Note

This attachment forms part of our Revenue Proposal for the 2023-24 to 2027-28 regulatory period. It should be read in conjunction with the other parts of the Revenue Proposal.

Our Revenue Proposal comprises the overview and attachments listed below, and the supporting documents that are listed in Attachment 14:

- Revenue Proposal Overview
- Attachment 1 – Maximum allowed revenue
- Attachment 2 – Regulatory asset base
- Attachment 3 – Rate of return
- Attachment 4 – Regulatory depreciation
- Attachment 5 – Capital expenditure
- Attachment 6 – Operating expenditure
- Attachment 7 – Corporate income tax
- Attachment 8 – Efficiency benefit sharing scheme
- Attachment 9 – Capital expenditure sharing scheme
- Attachment 10 – Service target performance incentive scheme
- Attachment 11 – Pricing methodology
- Attachment 12 – Pass through events
- Attachment 13 – Demand Management Innovation Allowance (this document)
- Attachment 14 – List of supporting documents

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13. Demand Management Innovation Allowance Mechanism

13.1 Key points

- In 2019 we supported a Rule change on behalf of transmission businesses to apply an innovation allowance for demand management to transmission networks. This allowed the AER to develop the Demand Management Innovation Allowance Mechanism (DMIAM) to provide funding for research and development in demand management projects that have the potential to reduce long-term network costs for customers.
- With the support of our Consumer Advisory Panel we propose the application of the DMIAM in the 2023-24 to 2027-28 regulatory period.
- We propose to apply the DMIAM in accordance with the AER's published scheme of May 2021. In particular, this Revenue Proposal seeks the maximum allowance in respect of eligible demand management projects. We will ensure that these projects are subject to independent assessment and that we collaborate with our peers to ensure that customers obtain the best value from this expenditure.

13.2 Introduction

This attachment presents information relating to the application of the DMIAM for the 2023-24 to 2027-28 regulatory period. The remainder of this attachment is structured as follows:

- Section 13.3 provides information on the purpose of the DMIAM;
- Section 13.4 describes the key features of the DMIAM; and
- Section 13.5 sets out our proposed application of the DMIAM for the 2023-24 to 2027-28 regulatory period.

13.3 Purpose

The AER's framework and approach paper¹ explains that:

- On 5 December 2019, the AEMC published a rule determination that required the DMIAM to apply to TNSPs. The AER then consulted on and published a final DMIAM on 27 May 2021.
- The purpose of the DMIAM is to encourage TNSPs to expand and share their knowledge and understanding of innovative demand management projects that may reduce long-term network costs and, consequently, drive lower prices for customers.

In its explanatory statement², the AER explained that the DMIAM provides an allowance to TNSPs to undertake demand management projects and programs that are not yet fully proven. Such activities have a level of risk of not being able to deliver favourable outcomes. The AER notes that in the absence of this allowance, TNSPs may otherwise be less inclined to try out such new ideas to manage their networks.

¹ AER, Framework and approach for ElectraNet for regulatory control period commencing 1 July 2023, June 2021, page 22, available at <https://www.aer.gov.au/networks-pipelines/determinations-access-arrangements/electranet-determination-2023-28/aer-position>

² AER, Explanatory Statement, Demand management innovation allowance mechanism, Electricity transmission network service providers, May 2021, page 11.

The AER also notes that while there is a risk that projects funded by the allowance may not result in a successful outcome, it expects some of the new initiatives to result in significant long-term benefits to consumers in reducing network investments. As a result, the DMIAM will facilitate significant potential customer benefits.

Given these potential benefits, the framework and approach paper concluded that the AER intends to apply the DMIAM to ElectraNet for the 2023-24 to 2027-28 period.

13.4 Key features of the DMIAM

The DMIAM comprises the following elements:

- To be eligible a project must meet the following requirements:
 - be a project or program for researching, developing or implementing demand management capability or capacity;
 - be innovative; in that the project or program:
 - (i) is based on new or original concepts; or
 - (ii) involves technology or techniques or concepts that differ from those previously implemented or used in the relevant market; or
 - (iii) is focused on customers in a market segment that significantly differs from those previously targeted by implementations of the relevant technology, in relevant geographic or demographic characteristics that are likely to affect demand;
 - have the potential, if proved viable, to reduce long term network costs (including, for example, by improving wholesale market outcomes); and
 - be the subject of a public commitment given by the TNSP to share information about the results of the project or program
- A TNSP may seek and obtain a written independent assessment as to whether a proposed project or program meets the eligible project criteria. The endorsement of proposed demand management projects by an independent panel or the TNSP's Consumer Consultative Committee or an independent electrical engineer is not mandatory, but is strongly encouraged.
- An annual allowance of 0.1 per cent of the annual building block revenue requirement is provided in relation to eligible projects for each TNSP. A separate allowance of \$200,000 to fund the independent endorsements is also provided. The total amount of expenditure determined by the AER as recoverable by the TNSP for a regulatory control period will not exceed this allowance. Any under-spend is to be returned to customers.
- The AER will review the DMIAM expenditure a TNSP has incurred in each regulatory year to ensure compliance with the project criteria. In doing so, the AER will have particular regard to whether an independent assessment of a project or program has been carried out, and to the findings of any independent assessment.
- For each regulatory year, the AER will determine the amount of the DMIAM allowance that is recoverable by the TNSP as at the end of that regulatory year. This amount will exclude any amount provided to the TNSP by another TNSP, or by another party, for the purposes of implementing a jointly funded eligible project.

13.5 Proposed application of the DMIAM from 1 July 2023

The AER's published DMIAM requires that our Revenue Proposal must:³

- include a description, including relevant explanatory material, of how we propose this mechanism should apply for the 2023-24 to 2027-28 regulatory period; and
- detail how our proposed approach would satisfy the requirements of the National Electricity Law and Rules.

In this Revenue Proposal, we propose to apply the DMIAM for the 2023-24 to 2027-28 regulatory control period, in accordance with the AER's Framework and Approach paper and the AER's published DMIAM. In particular, our proposal is to provide a maximum operating expenditure allowance of \$200,000 plus 0.1% of the total annual building block revenue requirement.

In applying the DMIAM during the 2023-24 to 2027-28 regulatory control period, we propose to work with our Consumer Advisory Panel to obtain independent assessments of the relevant projects to demonstrate their eligibility to be funded through the DMIAM.

Given the relatively modest nature of the allowance, we intend to focus our efforts on a small number of potential opportunities where we envisage end-customer demand management being directly applicable to transmission level outcomes. We will also consider opportunities to work with other TNSPs and DNSPs such as SA Power Networks to collaborate and pool funding to progress joint projects.

While we have not developed any firm proposals at this time, we set out below a number of indicative examples of the types of demand management projects that we may explore further:

- Participation in Emergency System Management

Description: Explore incentives and technology to enable control of demand side response and broader Distributed Energy Resources (DER) such that they can contribute to emergency management activities, for example to allow (voluntary) participation in Special Protection Schemes (SPSs) required to maintain system security.

Potential benefit: Minimise forced customer outages during conditions where emergency schemes operate. Improve resilience and selectivity of SPSs with high DER penetration.

- Regional demand smoothing

Description: Explore incentives and technology to dispatch demand side response and broader DER (storage, solar PV, controllable load) in a way that counteracts the moment-by-moment fluctuations from sources of intermittent generation (e.g. large solar or wind farms).

Potential benefit: Improve the ability to operate at levels of high export from South Australia while minimising the risk that short-term fluctuations in intermittent generation could overload interconnector capability.

- Intermittent generation following

³ AER, Demand management innovation allowance mechanism, Electricity transmission network service providers, May 2021, clause 2.1(b).

Description: Explore incentives and technology to encourage high consumption at times of high intermittent generation output, and low consumption or net generation at times of low intermittent generation output.

Potential benefit: Improve the correlation of demand to intermittent generation output, allowing more efficient network operation and operation of the market.

- EV-to-Grid integration

Description: Explore incentives and technology to enable electric vehicles (EVs) to contribute to meeting grid and energy market needs such as localised transmission limitations.

Potential benefit: Minimise the amount of network and generator investment needed to accommodate the future EV fleet.

- Locational trough filling

Description: Explore incentives and technology to encourage increased connection point demand at times of very low or negative (reverse power flow) local demand due to the presence of significant embedded generation and localised transmission needs.

Potential benefit: Enable increased penetration of embedded generation at local connection points that are at or close to their technical limits due to very high penetration of embedded customer generation and avoid unnecessary network investment.

- Locational peak lopping

Description: Explore incentives and technology to encourage reduced connection point demand at very high local demand times.

Potential benefit: Defer connection point augmentation and/or reduce the size of network replacement investment.

This proposed approach meets both the criteria of the scheme and the relevant requirements of the National Electricity Rules.

