Attachment 12 - Demand Management Incentives and Allowances

2025–30 Regulatory Proposal

January 2024

SA Power Networks

Empowering South Australia

Company information

SA Power Networks is the registered Distribution Network Service Provider for South Australia. For information about SA Power Networks visit sapowernetworks.com.au

Contact

For enquiries about this Regulatory Proposal please contact:
Richard Sibly
Head of Regulation
SA Power Networks
GPO Box 77 Adelaide SA 5001 sapn2025proposal@sapowernetworks.com.au

Disclaimer

This document forms part of SA Power Networks' Regulatory Proposal to the Australian Energy Regulator for the 1 July 2025 to 30 June 2030 regulatory control period. The Proposal and its attachments were prepared solely for the current regulatory process and are current as at the time of lodgement.

This document contains certain predictions, estimates and statements that reflect various assumptions concerning, amongst other things, economic growth and load growth forecasts. The Proposal includes documents and data that are part of SA Power Networks' normal business processes and are therefore subject to ongoing change and development.

Whilst care was taken in the preparation of the information in this Regulatory Proposal, and it is provided in good faith, SA Power Networks, its officers and shareholders accept no responsibility or liability for any loss or damage that may be incurred by any person acting in reliance on this information or assumptions drawn from it for a different purpose or in a different context.

Copyright

Note

This attachment forms part of our Proposal for the 2025–30 Regulatory Control Period. It should be read in conjunction with the other parts of the Proposal.

Our Proposal comprises the overview and attachments listed below, and the supporting documents that are listed in Attachment 20:

Document	**Description**
	Regulatory Proposal overview
Attachment 0	Customer and stakeholder engagement program
Attachment 1	Annual revenue requirement and control mechanism
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	Customer Service Incentive Scheme
Attachment 12	**Demand management incentives and allowance**
Attachment 13	Classification of services
Attachment 14	Pass through events
Attachment 15	Alternative Control Services
Attachment 16	Negotiated services framework and criteria
Attachment 17	Connection Policy
Attachment 18	Tariff Structure Statement Part A
Attachment 18	Tariff Structure Statement Part B - Explanatory Statement
Attachment 19	Legacy Metering
Attachment 20	List of Proposal documentation

Contents

List of tables

List of figures

1 Overview

The Demand Management Innovation Allowance Mechanism (**DMIAM**) and Demand Management Incentive Scheme (**DMIS**) were introduced by the Australian Energy Regulator (**AER**) to encourage research and development to manage demand by non-network solutions. The DMIAM funds research and development in demand management projects that have the potential to reduce long term network costs. The DMIS, provides network service providers with financial incentives for undertaking efficient demand management activities.

SA Power Networks is currently applying the DMIAM and DMIS guidelines as published by the AER in 2017. This Attachment sets out our proposed application of the DMIAM and DMIS for the 2025–30 Regulatory Control Period (**RCP**).

We note that the DMIAM and DMIS instruments largely operate outside of the distribution determination process, via an annual compliance and approval process. DMIAM and DMIS projects are not included in our proposed operational or capital expenditure, and approval of the projects is an annual process that occurs separate to the distribution determination.

The AER's DMIAM and DMIS guidelines require our proposal to include a description, including relevant explanatory material of how we propose the DMIAM and DMIS should apply for the 2025–30 RCP.[1] Further, it also requires us to detail how we would satisfy the National Electricity Rules (**NER**) for DMIAM and DMIS.

The AER's 2025–30 Framework and Approach (**F&A**) stated it intends to continue to apply the DMIAM and DMIS to SA Power Networks for the 2025–30 RCP[2]. We support this and propose to include both the DMIAM and DMIS in our proposal.

1.1 Rule requirements

The NER set out the relevant requirements in relation to the DMIAM and DMIS which are that:

- A building block proposal must contain a description of how the Distribution Network Service Provider (**DNSP**) proposes that any DMIAM or DMIS specified in the F&A paper should apply for the forthcoming distribution determination;[3]
- the building blocks used to calculate the annual revenue requirement for each regulatory year of the RCP must include (amongst other things) revenue increments or decrements for the relevant regulatory year arising from the application of the DMIAM and DMIS;[4] and
- the building block determination must also specify how any applicable DMIS and DMIAM is to apply to the DNSP[5].

1 The NER S 6.1.3(5) also requires a description, including any relevant explanatory material, of how we propose any DMIAM or DMIS specified in the Framework and Approach (F&A) paper should apply for the 2025–30 RCP.

2 AER, *Framework and approach, SA Power Networks 2025–30*, July 2023, p 20.

3 NER S6.1.3(5).

4 NER 6.4.3(a)(5).

5 NER, 6.3.2(a)(3).

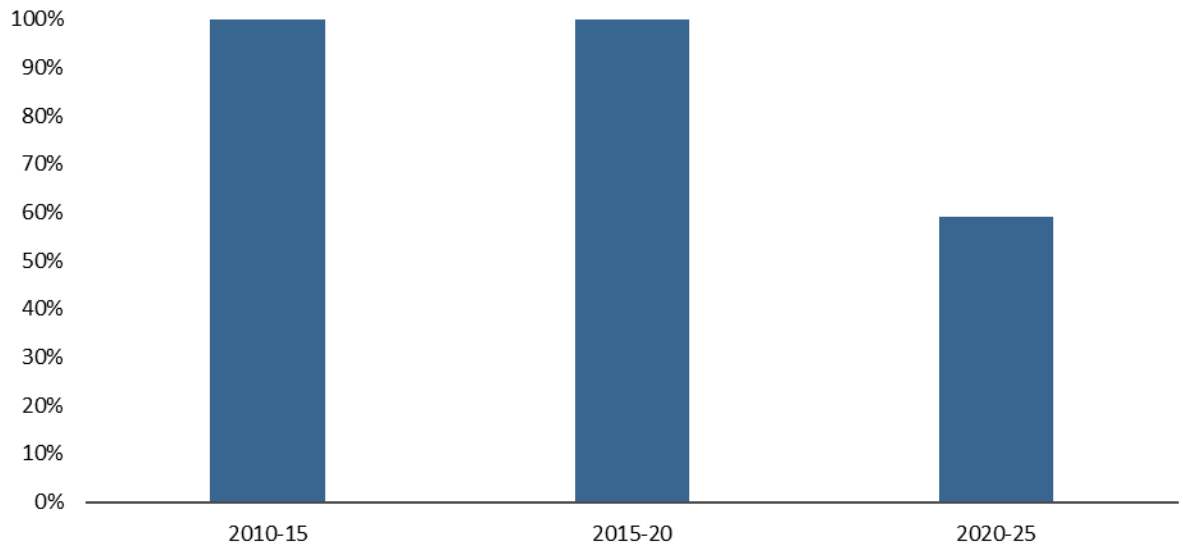
2 Application of the Demand Management Innovation Allowance Mechanism

We propose that the DMIAM should continue to apply for the 2025–30 RCP, consistent with the AER's proposed position as set out in its Final F&A.

2.1 Current Demand Management Innovation Allowance Mechanism

SA Power Networks has proactively applied the DMIAM on various innovative trials and projects since its application commenced in July 2010. Figure 1 demonstrates our spending compared to the Demand Management Innovation Allowance (**DMIA**). We have sought to maximise value to customers by trialing innovative demand management solutions in collaboration with other parties, through joint funding arrangements and actively disseminated our learnings with other networks and industry participants.

Figure 1: DMIAM—Percentage of DMIA used to date[6]



During the 2020–25 RCP the innovation allowance was used to fund the following projects:

- A smart hot water project to demonstrate active control over 2,400 residential hot water systems, 200 air conditioning control load adapters and 200 pool pump control load adapters within South Australia. The project began in 2019 with field trials commencing in 2022.
- Advanced planning projects where we have sought to develop more innovative methods and tools for network planning, including optimising efficient outcomes across both network and non-network solutions. This includes projects to establish:
  - a health index for each low voltage (**LV**) area within the distribution network which can be used to rank the performance of LV areas and guide targeted remediation work to proactively manage LV network areas and prioritise augmentation spend; and
  - tools and processes associated with SA Power Networks' digital network models, to enable advanced network constraint analysis.
- Voltage control projects that develop more effective and efficient approaches to voltage management in Consumer Energy Resource (**CER**) systems. Such as:

[6] To June 2023, we are 60 percent of the way through the 2020–25 RCP, and on track to again utilise 100 percent of the DMIAM.

  - developing models and algorithms to perform closed loop voltage control in limited visibility environments, and testing this capability at a substation; and
  - undertaking trials of innovative new types of equipment that can be used as viable alternatives to efficiently address voltage constraints in the LV network and defer significant network augmentation.
- Electrification and demand flexibility projects that sought to demonstrate the customer and network benefits of demand flexibility, and how their deployment at scale could be accelerated, specifically:
  - through the deployment of flexible demand-side technology in homes, trialed by simple, customer-focused 'flexible' energy service offerings with project partners who have the capacity to deploy these new services at scale in Australia; and
  - investigating and deploying the processes and potential benefits of Electric Vehicles (**EVs**) through the establishment of a register of EV Chargers and enabling vehicle-to-grid infrastructure.
- A demand management capability project in a regional area that researched how a control system could achieve load reduction through the automated start and ramp up of customer owned generation systems, or how voluntary load shedding could reduce demand on the distribution network.

2.2 Forecast Demand Management Innovation Allowance

The DMIA provides a fixed annual allowance calculated as $200,000 ($ June 2017) plus 0.075 percent of the Annual Revenue Requirement (**ARR**)[7] for each regulatory year[8]. This allowance is provided ex ante and is recovered from consumers throughout the regulatory control period, where any underspend will be returned to customers in the following period.

Applying the calculation as set out above, we propose that the maximum allowance for SA Power Networks for the 2025–30 RCP should be $5.14 million, as set out in Table 1.

Table 1: Calculation of total amount of the DMIA for the 2025–30 RCP ($ million, June 2025)

	2025/26	2026/27	2027/28	2028/29	2029/30	2025–30 RCP
Fixed Allowance	0.26	0.26	0.26	0.26	0.26	1.28
Annual Revenue Requirement (ARR) – Unsmoothed – Prior to Shared Asset and DMIA adjustment	979.59	990.64	1,014.50	1,076.26	1,091.53	5,152.53
Variable allowance (0.075% of ARR)	0.74	0.74	0.76	0.81	0.82	3.86
Total DMIAM Cap	**0.99**	**1.00**	**1.02**	**1.06**	**1.07**	**5.14**

In general, we expect to make use of the DMIAM in the 2025–30 RCP for targeted innovation and research projects to further our understanding of how to manage the changing nature of demand on our network and the ongoing transition to decentralised generation. Over the course of the engagement program that has informed this Regulatory Proposal, customers and stakeholders have been supportive of our innovative approaches to demand management to date. They encouraged us to consider new demand management programs for the 2025–30 period that will complement other programs of work. We have identified a range of projects that we may consider in 2025–30 including:

- A residential demand flexibility pilot;
- Load-side Dynamic Operating Envelope implementation;

[7] As detailed in SA Power Networks' Standard Control Services Post Tax Revenue Model.

[8] As set out in section 2.1(2) of the DMIAM guideline.

- Dynamic Operating Envelopes for Battery Energy Storage Systems and Virtual Power Plants;
- Flexible connections for commercial and industrial customers;
- Trials of future market models including flexible trading; and
- Trials of dynamic pricing.

As we further develop these projects, we will continue to seek to maximise the value of the DMIAM through partnerships with third-parties and leveraging external funding sources.

3 Application of the Demand Management Incentive Scheme

The DMIS operates as an incentive cost uplift of up to 50 percent of our expected costs of efficient demand management projects, subject to certain constraints. We propose that the DMIS should continue to apply to the 2025–30 RCP, consistent with the AER's proposed position as set out its Final F&A.

3.1 Current Demand Management Incentive Scheme Projects

SA Power Networks is committed to finding lower cost non-network solutions for consumers as an alternative to capacity augmentation or replacement expenditure. We recently entered into a demand management contract which seeks to address a system limitation in the Tailem Bend to Pinaroo 33 kV sub-transmission system and is forecast to provide $7.14 million in benefits to customers.

3.2 Forecast Demand Management Incentive Scheme Projects

The DMIS operates separately to the distribution determination via an application, reporting and approval process as set out in the DMIS documentation. There are no funds to be determined upfront, with applications being required to be made during the 2025–30 RCP as potential projects arise.

The DMIS provides an incentive to reward DNSPs for finding lower cost solutions as alternatives to investing to augment the capacity of the network, or to replace network assets with traditional like-for-like replacements. It is noted for individual projects valued at greater than $6 million that we are required to tender for non-network alternatives through the Regulatory Investment Test for Distribution (**RIT-D**) process.

We consider with the growth in CER, Virtual Power Plants and community batteries that there may be new opportunities to procure non-network solutions for smaller projects that fall below the RIT-D value threshold as well as possible larger projects.

In addition, the innovation projects we are considering under the DMIAM, described in the previous section, could also give rise to specific opportunities to deploy non-network solutions that would qualify for DMIS.

SA Power Networks proposes that the AER continues to apply the DMIS published by the AER in December 2017, for the 2025–30 RCP.

Glossary

Acronym / term	Definition
AER	Australian Energy Regulator
ARR	Annual Revenue Requirement
CER	Customer Energy Resources
DMIA	Demand Management Innovation Allowance
DMIAM	Demand Management Innovation Allowance Mechanism
DMIS	Demand Management Incentive Scheme
DNSP	Distribution Network Service Provider
EV	Electric vehicle
F&A	Framework and Approach
LV	Low Voltage
NER	National Electricity Rules
RCP	Regulatory Control Period
RIT-D	Regulatory Investment Test for Distribution