SA Power Networks

Attachment 1

Annual Revenue Requirement and Control Mechanism

2020-25
Regulatory Proposal

31 January 2019

This section outlines:

› the proposed annual revenue requirement and control mechanism for SA Power Networks' Standard Control Services for the 2020-25 Regulatory Control Period.

Company information

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

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Disclaimer

This document forms part of SA Power Networks' Regulatory Proposal (**the Proposal**) to the Australian Energy Regulator (**AER**) for the 1 July 2020 to 30 June 2025 regulatory control period (2020-25 **RCP**). The Proposal and its attachments were prepared solely for the current regulatory process and are current as at the time of lodgment.

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.

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Note

This attachment forms part of our Proposal for the 2020-25 RCP. 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 18:

Document	Description
	Regulatory Proposal overview
	Customer and stakeholder engagement report
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	Demand management incentives and allowance
Attachment 12	Classification of services
Attachment 13	Pass through events
Attachment 14	Alternative Control Services
Attachment 15	Negotiated services framework and criteria
Attachment 16	Connection policy
Attachment 17	Tariff Structure Statement
Attachment 18	List of Proposal documentation

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1.1 Overview

1.1.1 Annual revenue requirement

Our annual revenue requirement (**ARR**) reflects the sum of the revenue building blocks – namely the return on capital, return of capital (depreciation), operating expenditure, revenue adjustments, and corporate tax allowance, for services classified as standard control services (**SCS**).

Our revenue requirement is calculated in accordance with the standard post-tax building block approach outlined in the National Electricity Rules (**NER**)[1], and the AER's Post-Tax Revenue Model (**PTRM**), except for our current estimate of corporate income tax which has been adjusted to reflect the AER's final report in relation to the review of regulatory tax approach published on 17 December 2018 (**Final Tax Report**). Pending the development and issue of an amended version of the PTRM that reflects the findings and recommendations of that report, we are unable to calculate an accurate estimate of corporate income tax (see section 7.3 of Attachment 7 – Corporate income tax for further details concerning the manner in which we have determined a placeholder amount for the estimate of corporate income tax).

If accepted by the Australian Energy Regulator (**AER**), our ARR will deliver residential customers an annual average $40 reduction (nominal) in their distribution charges and small to medium businesses an annual average $111 (nominal) reduction in their distribution charges from 1 July 2020.

1.1.2 Regulatory control period

SA Power Networks proposes that the next regulatory control period (**RCP**) should be for the five years commencing on 1 July 2020 and ending on 30 June 2025. This is called the 2020–25 RCP in this Attachment.

1.1.3 Lodgement

In accordance with the NER, SA Power Networks is required to lodge its regulatory proposal (the **Proposal**) by 31 January 2019, being 17 months prior to the expiry of the 2015-20 RCP (ie 30 June 2020)[2].

1.1.4 Cost Allocation

The ARR relates to distribution services classified as SCS. All costs in relation to the provision of SCS have been attributed and allocated in accordance with SA Power Networks' approved Cost Allocation Method (**CAM**)[3].

1.1.5 Presentation of numbers

In our Proposal, unless stated otherwise, forecast and historical expenditure is expressed in real terms in June 2020 dollars, while the regulatory asset base (**RAB**) and revenue building blocks are presented in nominal dollars consistent with the AER's PTRM.

We note that totals presented in table rows and columns throughout this Proposal may not necessarily add due to rounding.

1.2 Rule requirements

[1] *NER Chapter 6 Part C.*

[2] *NER 6.8.2(b).*

[3] *Version 4, approved by the AER in January 2018; available at: https://www.sapowernetworks.com.au/public/download.jsp?id=309684*

1.2.1 Control mechanism

Clause 6.2.6(a) of the NER provides that for SCS, the control mechanism must be of the prospective CPI minus X form, or some incentive-based variant of the prospective CPI minus X form, in accordance with Part C of Chapter 6 of the NER.

The AER must set out its proposed approach to the form of control mechanism and formula that gives effect to the control mechanism in its Framework & Approach (**F&A**) paper for a forthcoming distribution determination[4]. The F&A is not binding on the AER or SA Power Networks[5]. However, clauses 6.12.3(c) and (c1) of the NER provide that the form of control mechanism must be as set out in the relevant F&A unless the AER:

- has departed from the classification of a particular distribution service as set out in the F&A in accordance with clause 6.12.3(b) of the NER and considers that no form of control mechanism set out in the F&A should apply to that distribution service; or
- considers that a material change in circumstances justifies departing from the formula that gives effect to the control mechanism set out in the F&A.

1.2.2 Annual revenue requirement

Clause 6.8.2(c)(3) of the NER provides that our Proposal must include a building block proposal for direct control services classified as SCS. Part C of Chapter 6 of the NER sets out the procedure and approach for making a building block proposal and determination.

Clause 6.3.2 of the NER provides that a building block determination is to specify (amongst other things) the ARR for each regulatory year of the relevant RCP. The building blocks are set out in clause 6.4.3 of the NER for each regulatory year of the RCP, as follows:

- indexation of the RAB;
- return on capital for that regulatory year;
- depreciation for that regulatory year;
- estimated cost of corporate income tax for the Distribution Network Service Provider (**DNSP**) for that regulatory year;
- revenue increments and decrements (if any) for that regulatory year arising from the application of the efficiency benefit sharing scheme (**EBSS**), capital expenditure sharing scheme (**CESS**), service target performance incentive scheme (**STPIS**), demand management incentive scheme (**DMIS**), the demand management innovation allowance mechanism (**DMIAM**) or small-scale incentive scheme (**SSIS**)[6];
- revenue decrements (if any) arising from use of shared assets;
- other revenue adjustments (if any) arising from the application of a control mechanism in the previous RCP; and
- forecast operating expenditure for that regulatory year.

Clause 6.5 of the NER contains the specific requirements for these building block components, which are used to establish an unsmoothed revenue requirement. The resulting price path to deliver this revenue is then smoothed with X factors, in accordance with the requirements of clause 6.5.9 of the NER.

This Attachment outlines the derivation of allowable annual revenues, prices and the associated X factors, to meet the requirements of clause S6.1.3(6) of the NER. The associated detail of all amounts, values and

[4] *NER 6.8.1(b)(1)(i) and (2)(ii).*
[5] *NER 6.8.1(f).*
[6] In the final F&A the AER determined that it would not apply any SSIS in the 2020-25 RCP.

inputs relevant to the calculation is contained in other Attachments to this Proposal, its Supporting Documents and in the PTRM.

1.3 Control mechanism for SCS

1.3.1 Form of control mechanism

The AER decided in its final F&A for SA Power Networks for the 2020–25 RCP, that our SCS are to continue to be regulated via a revenue cap form of control[7].

Under a revenue cap form of control, the AER sets the total allowed revenue (or annual revenue requirement) for each regulatory year of the 2020–25 RCP. SA Power Networks must comply with the revenue cap by forecasting sales for the next regulatory year and setting prices so the expected revenue is equal to or less than the total revenue allowed. At the end of each regulatory year, SA Power Networks will report actual differences to the AER and any over or under recovery is deducted from or added to the total revenue in future regulatory years.

Annual revenue allowances will also be adjusted for outcomes of the various incentive schemes listed in clause 6.4.3 of the NER and may incorporate cost adjustments for pass through events.

Our reasons for accepting this form of control were set out in our submissions to, and considered during, the F&A process.

Details in relation to our sales and demand forecasts for the 2020–25 RCP are contained in Attachment 17 – Tariff Structure Statement.

1.3.2 Formula for control mechanism

The final F&A sets out the AER's proposed formula to give effect to the revenue cap form of control for SCS[8].

We accept the AER's proposed formula, subject to clarifying the application of the S–factor:

- The AER proposed to include an S–factor to account for any revenue increments or decrements resulting from the application of the STPIS, including the application of the STPIS in the 2015–20 RCP.
- The S–factor operates with a two-year lag. We propose that the AER makes it clear in its determination on the control formula, that the S–factor operates with a two–year lag.

[7] *AER, Final Framework and Approach—SA Power Networks regulatory control period commencing 1 July 2020*, July 2018, *page 11.*
[8] *Ibid, page 54.*

The revenue cap formula to be applied to SA Power Networks' SCS for the 2020–25 RCP is as set out in Figure 1-1 below, extracted from our final F&A[9]:

Figure 1-1: Revenue cap to be applied to SCS

1. $TAR_t \geq \sum_{i=1}^{n} \sum_{j=1}^{m} p_t^{ij} q_t^{ij}$ i = 1,…,n and j = 1,…,m and t = 1, 2…,5

2. $TAR_t = AAR_t + I_t + B_t + C_t$ t = 1, 2…,5

3. $AAR_t = AR_t \times (1 + S_t)$ t = 1

4. $AAR_t = AAR_{t-1} \times (1 + \Delta CPI_t) \times (1 - X_t) \times (1 + S_t)$ t = 2,…,5

where:

TAR_t is the total allowable revenue in year t.

p_t^{ij} is the price of component 'j' of tariff 'i' in year t.

q_t^{ij} is the forecast quantity of component 'j' of tariff 'i' in year t.

t is the regulatory year.

AR_t is the annual smoothed revenue requirement in the Post Tax Revenue Model (PTRM) for year t.

AAR_t is the adjusted annual smoothed revenue requirement for year t.

I_t is the sum of incentive scheme adjustments in year t. To be decided in the distribution determination.

B_t is the sum of annual adjustment factors in year t. Likely to incorporate but not limited to adjustments for the unders and overs account. To be decided in the distribution determination.

C_t is the sum of approved cost pass through amounts (positive or negative) with respect to regulatory year t, as determined by the AER. It will also include any end-of-period adjustments in year t. To be decided in the distribution determination.

S_t is the s-factor for regulatory year t.[192] As it currently stands, the s-factor will incorporate any adjustments required due to the application of the AER's STPIS.[193]

ΔCPI_t is the annual percentage change in the ABS CPI All Groups, Weighted Average of Eight Capital Cities[194] from the December quarter in year t–2 to the December quarter in year t–1, calculated using the following method:

> The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the December quarter in regulatory year t–1
>
> divided by
>
> The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the December quarter in regulatory year t–2
>
> minus one.

For example, for 2020–21, year t–2 is the December quarter 2018 and year t–1 is the December quarter 2019.

X_t is the X-factor in year t, incorporating annual adjustments to the PTRM for the trailing cost of debt where necessary. To be decided in the distribution determination.

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[9] *AER, Final Framework and Approach—SA Power Networks regulatory control period commencing 1 July 2020, July 2018, page 54-55.*

SA Power Networks will demonstrate compliance with the revenue cap control mechanism and formula for SCS by proposing tariffs that comply with this formula in its annual pricing proposal for each regulatory year of the 2020–25 RCP.

1.4 Annual revenue requirement

The ARR, developed utilising the building block approach, comprises the sum of a number of components which are discussed in detail in other Attachments to this Proposal. If accepted, our ARR will deliver residential customers an annual average $40 reduction (nominal) in their distribution charges and small to medium businesses an annual average $111 (nominal) reduction in their distribution charges from 1 July 2020.

The building block components and resulting ARR derived from the SCS PTRM are set out in Table 1-1. below.

Table 1-1: Proposed SCS Revenue for the 2020-25 RCP (nominal, $ million)

	2020/21	2021/22	2022/23	2023/24	2024/25	2020-25 RCP
Return on capital	239.8	248.2	256.9	263.0	268.8	1,276.6
Regulatory depreciation	217.3	233.8	252.1	264.6	265.6	1,233.3
Operating expenditure	309.4	321.1	334.2	346.7	359.4	1,670.8
Revenue adjustments	22.9	(11.1)	9.0	4.0	15.3	40.1
Net tax allowance[10]	0.0	0.0	0.0	0.0	0.0	0.0
Annual revenue requirement (unsmoothed)	789.4	791.9	852.1	878.2	909.1	4,220.8
Annual revenue requirement (smoothed)	802.3	822.1	842.4	863.2	884.5	4,214.5
Revenue Po and X-factors	2.83%	0.0%	0.0%	0.0%	0.0%	

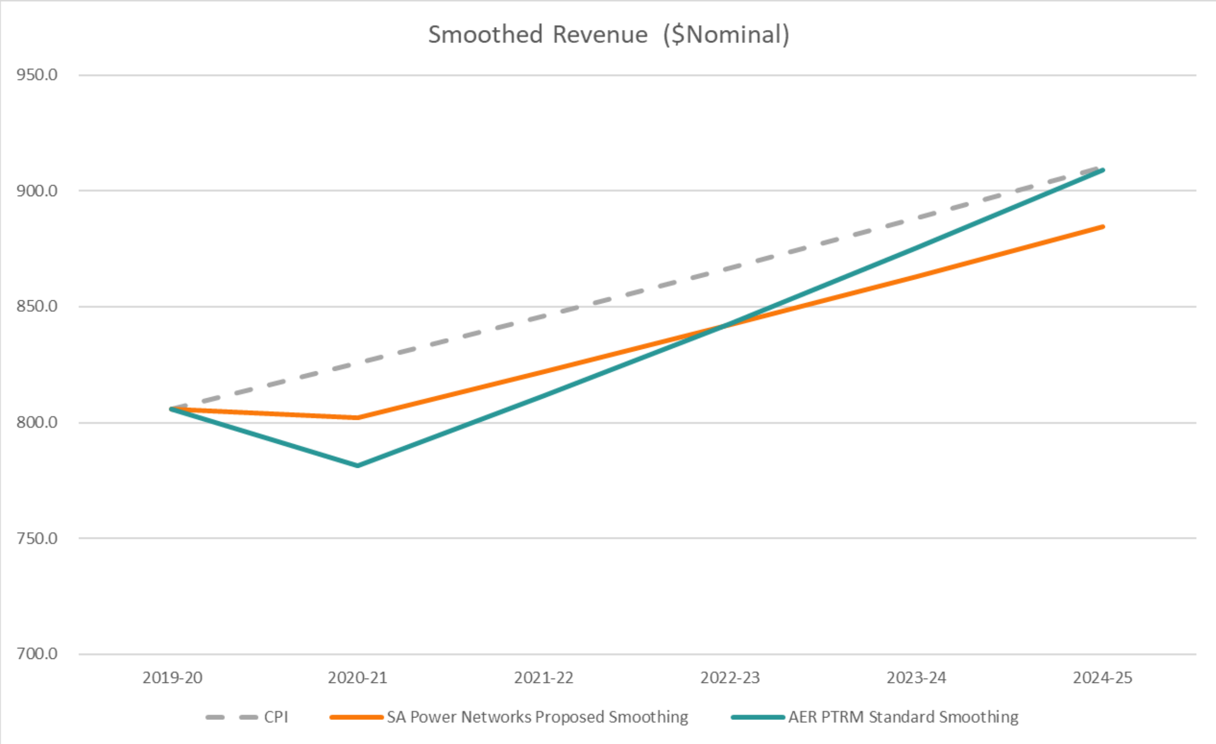
The Po revenue reduction and X-factors proposed in Table 1-1 are SA Power Networks preferred approach to reducing price volatility, in line with AEMC pricing policy objectives. This approach results in the final regulatory year's smoothing revenue being 2.7% below the building block revenue for that regulatory year, which is within the 3% target band that the AER has applied in other determinations[11]. The AER's standard smoothing approach would see more volatile prices with a Po reduction of 5.34% and subsequent annual real price increases of 1.35%, refer to Figure 1-2 below.

SA Power Networks consulted with customers and stakeholders during our engagement process and received general support for our proposed revenue smoothing.

[10] This is a place holder amount only. The actual allowance will be determined in accordance with the PTRM once it has been updated by the AER to reflect the outcomes from Final Tax Report – See section 7.3 of Attachment 7 – Corporate income tax for further details concerning the manner in which we have determined a placeholder amount for the estimate of corporate income tax.

[11] *See, for example, AER, Draft Decision: TasNetworks Distribution Determination 2019 to 2024, Attachment 1- Annual revenue requirement, September 2018, page 1-12. Similarly referred to in AER, Draft Decision: Evoenergy Distribution Determination 2019 to 2024, Attachment 1- Annual revenue requirement, September 2018, page 1-14.*

Figure 1-2: Comparison of price smoothed outcomes



1.5 Revenue adjustments

1.5.3 Overview

Revenue adjustments for the 2020–25 RCP have been included for SA Power Networks' EBSS, CESS, DMIS, DMIAM (applicable for the 2020–25 RCP) and any shared asset cost reduction. A summary of adjustments is shown in Table 2-1 below.

Table 2-2: Revenue adjustments for the 2020-25 RCP (nominal, $ million)

	2020/21	2021/22	2022/23	2023/24	2024/25	2020-25 RCP
EBSS	9.2	(25.2)	(5.5)	(11.0)	-	(32.5)
CESS	14.3	14.6	15.0	15.4	15.8	75.1
DMIS and DMIAM	0.8	0.8	0.9	0.9	0.9	4.3
Shared assets	(1.3)	(1.3)	(1.3)	(1.3)	(1.3)	(6.7)
Total revenue adjustments	22.9	(11.1)	9.0	4.0	15.3	40.1

1.5.4 EBSS

The AER has developed and applied the latest version of the EBSS (version 2) to SA Power Networks for the 2015-20 RCP in accordance with clause 6.5.8 of the NER.

We forecast a carry-over EBSS loss of $32.5 million ($30.1 million in $June 2020) as shown in Table 2-1 above.

In accordance with the final F&A, we propose to continue to apply version 2 of the EBSS for the 2020–25 RCP.

Full details in relation to the application of the EBSS to this Proposal and the 2020–25 RCP are contained in Attachment 8 – Efficiency benefit sharing scheme.

1.5.5 CESS

The AER has developed and applied its CESS (version 1) to SA Power Networks for the 2015-20 RCP in accordance with clause 6.5.8A of the NER.

We forecast a carry-over CESS payment of $75.1 million ($69.7 million in $June 2020) as shown in Table 2-1 above.

In accordance with the final F&A, we propose to continue to apply version 2 of the CESS for the 2020–25 RCP.

Full details in relation to the application of the CESS to this Proposal and the 2020–25 RCP are contained in Attachment 9 – Capital expenditure sharing scheme.

1.5.6 STPIS

The AER has developed and applied its STPIS (version 1) to SA Power Networks for the 2015–20 RCP in accordance with clause 6.6.2 of the NER.

In accordance with the final F&A, we propose to apply STPIS (version 2) for the 2020–25 RCP.

As mentioned above, the revenue cap formula contains a S–factor to account for any revenue increments or decrements resulting from the application of the STPIS.

Full details in relation to the application of the STPIS to this Proposal and the 2020–25 RCP are contained in Attachment 10 – Service target performance incentive scheme.

1.5.7 DMIS and DMIAM

In December 2017, the AER introduced its new DMIS and DMIAM. We propose to apply the new DMIS and DMIAM for the 2020–25 RCP, consistent with the AER's proposed position as set out its final F&A.[12]

Full details in relation to the application of the DMIS and DMIAM to this Proposal and the 2020–25 RCP are contained in Attachment 11 - Demand management incentives and allowances.

1.5.8 Shared Assets

Where an asset is used to provide both SCS and unregulated services, clause 6.4.4 of the NER allows the AER to reduce SA Power Networks' SCS regulated revenue by an amount that the AER considers is reasonable to reflect such part of the cost of the asset that is being recovered through charging for unregulated services. Clause 6.4.4 of the NER requires the AER to have regard to the shared asset principles and the Shared Asset Guideline (**SAG**) in determining shared asset cost reductions.

Paragraph 2.4. of the SAG states that service providers may include in a regulatory proposal for a RCP proposed cost reductions for the AER's approval.

The shared asset cost reduction methodology set out in the SAG requires service providers to determine the forecast shared asset unregulated revenue (**SAUR**) for a RCP.

We have used the same methodology for estimating of our SAUR as accepted by the AER in our distribution determination for the 2015–20 RCP (**2015 Determination**). This involves calculating the sum of:

[12] AER, *Final Framework and Approach—SA Power Networks regulatory control period commencing 1 July 2020, July 2018, page 75.*

- for unregulated services that rely on the use of shared assets, such as pole rental and other facilities access or asset rental services — the unregulated revenue earned from those services; and
- for each unregulated service that uses shared assets insignificantly, such as unregulated construction and maintenance, or external training services that use regulated equipment, information technology and/or buildings — the portion of that revenue that reflects the extent to which the service recovers the asset costs of relevant shared assets.

Where shared asset revenues are absorbed in overall project revenues, we have used the allocation apportioned by our approved CAM to derive those revenues.

Shared asset cost reductions are subject to a materiality threshold. Unregulated use of shared assets is material when the SAUR in a specific regulatory year is expected to be greater than 1% of its total ARR for that regulatory year. We expect our SAUR to exceed the materiality threshold for each regulatory year of the 2020–25 RCP and propose a shared asset cost reduction of $6.7 million ($ nominal) in accordance with the SAG as summarised in Table 2-2 below.

Table 2-3: Shared asset cost reduction (nominal, $ million)

Shared Asset Cost Adjustment	2020/21	2021/22	2022/23	2023/24	2024/25	2020-25 RCP
Average SAUR	13.4	13.4	13.4	13.4	13.4	67.0
Smoothed ARR	802.3	822.1	842.4	863.2	884.5	4,214.5
Average SAUR as proportion of ARR (%)	1.7%	1.6%	1.6%	1.6%	1.5%	
Material (Y/N)	Y	Y	Y	Y	Y	
Shared asset cost reduction	1.3	1.3	1.3	1.3	1.3	6.7

Detailed calculation of SA Power Networks' SAUR can be found in our Shared Asset Model set out in Supporting Document 1.2.

Shortened Forms

ARR .... *Annual Revenue Requirement*
CAM .... *Cost Allocation Method*
CESS .... *Capital Expenditure Sharing Scheme*
DMIAM .... *Demand Management Innovation Allowance Mechanism*
DMIS .... *Demand Management Incentive Scheme*
DNSP .... *Distribution Network Service Provider*
EBSS .... *Efficiency Benefit Sharing Scheme*
F&A .... *Framework and Approach*
NER .... *National Electricity Rules*
Proposal .... *2020-25 Regulatory Proposal*
PTRM .... *Post Tax Revenue Model*
RAB .... *Regulatory Asset Base*
RCP .... *Regulatory Control Period*
SAG .... *Shared Asset Guideline*
SAUR .... *Shared Asset Unregulated Revenue*
SCS .... *Standard Control Services*
STPIS .... *Service Target Performance Incentive Scheme*