PRELIMINARY DECISION
SA Power Networks determination 2015−16 to 2019−20

Attachment 9 − Efficiency benefit sharing scheme

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AUSTRALIAN ENERGY REGULATOR

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Note

This attachment forms part of the AER's preliminary decision on SA Power Networks' 2015–20 distribution determination. It should be read with all other parts of the preliminary decision.

The preliminary decision includes the following documents:

Overview

Attachment 1 – Annual revenue requirement

Attachment 2 – Regulatory asset base

Attachment 3 – Rate of return

Attachment 4 – Value of imputation credits

Attachment 5 – Regulatory depreciation

Attachment 6 – Capital expenditure

Attachment 7 – Operating expenditure

Attachment 8 – Corporate income tax

Attachment 9 – Efficiency benefit sharing scheme

Attachment 10 – Capital expenditure sharing scheme

Attachment 11 – Service target performance incentive scheme

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Attachment 17 – Negotiated services framework and criteria

Attachment 18 – Connection policy

Contents

Shortened forms

Shortened form	Extended form
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
augex	augmentation expenditure
capex	capital expenditure
CCP	Consumer Challenge Panel
CESS	capital expenditure sharing scheme
CPI	consumer price index
DRP	debt risk premium
DMIA	demand management innovation allowance
DMIS	demand management incentive scheme
distributor	distribution network service provider
DUoS	distribution use of system
EBSS	efficiency benefit sharing scheme
ERP	equity risk premium
Expenditure Assessment Guideline	Expenditure Forecast Assessment Guideline for electricity distribution
F&A	framework and approach
MRP	market risk premium
NEL	national electricity law
NEM	national electricity market
NEO	national electricity objective
NER	national electricity rules
NSP	network service provider
opex	operating expenditure
PPI	partial performance indicators

Shortened form	Extended form
PTRM	post-tax revenue model
RAB	regulatory asset base
RBA	Reserve Bank of Australia
repex	replacement expenditure
RFM	roll forward model
RIN	regulatory information notice
RPP	revenue and pricing principles
SAIDI	system average interruption duration index
SAIFI	system average interruption frequency index
SLCAPM	Sharpe-Lintner capital asset pricing model
STPIS	service target performance incentive scheme
WACC	weighted average cost of capital

9 Efficiency benefit sharing scheme

The efficiency benefit sharing scheme (EBSS) provides an additional incentive for service providers to pursue efficiency improvements in opex.

To encourage a service provider to become more efficient it is allowed to keep any difference between its approved forecast and its actual opex during a regulatory control period. This is supplemented by the EBSS which provides the service provider with an additional reward for reductions in opex it makes and additional penalties for increases in opex. In total these rewards and penalties work together to provide a constant incentive for a service provider to pursue efficiency gains over the regulatory control period. The EBSS also discourages a service provider from incurring opex in the expected base year in order to receive a higher opex allowance in the following regulatory control period.

During the 2010–15 regulatory control period SA Power Networks operated under the Electricity distribution network service providers' EBSS released in June 2008.[1]

9.1 Preliminary decision

We are not satisfied SA Power Networks' proposed EBSS carryover amounts comply with the requirements in the EBSS SA Power Networks operated under during the 2010–15 regulatory control period.[2] The difference between our calculations of the EBSS carryover amounts and SA Power Networks' proposal is due to the treatment of expenditure recorded as a provision, guaranteed service level (GSL) payments and a deferred negative carryover from the 2005–10 regulatory control period. Our preliminary decision for the EBSS carryover amounts from the 2010–15 regulatory control period is outlined in Table 9.1.

Table 9.1 AER's preliminary decision on SA Power Networks' EBSS carryover amounts ($ million, 2014–15)

	2015–16	2016–17	2017–18	2018–19	2019–20	Total
SA Power Networks' proposed carryover	10.1	16.3	0.1	-12.6	0.0	13.9
Preliminary decision	-0.7	-5.0	-2.7	3.8	0.0	-4.7

Source: AER analysis; SA Power Networks, *Regulatory proposal*, p. 280.

1 AER, *Electricity distribution network service providers' EBSS*, June 2008.

2 AER, *Electricity distribution network service providers' EBSS*, June 2008.

Our preliminary decision is to apply version two of the EBSS to SA Power Networks in the 2015–20 regulatory control period.[3] When we apply version two of the EBSS we will exclude the cost categories listed in section 9.4.2 from forecast and actual opex for the calculation of EBSS carryover amounts. Table 9.2 sets out our preliminary decision on SA Power Networks' target opex for the EBSS (total opex less excluded categories), against which we will calculate efficiency gains in the 2015–20 regulatory control period.

Table 9.2 AER's preliminary decision on SA Power Networks' forecast opex for the EBSS ($ million, 2014–15)

	2015–16	2016–17	2017–18	2018–19	2019–20
Forecast opex for the EBSS (exclusive of debt raising costs and DMIA)	240.5	243.0	245.1	247.4	249.7

Source: AER analysis.

9.2 SA Power Networks' proposal

Carryover amounts accrued during the 2010–15 regulatory control period

SA Power Networks proposed $13.9 million ($2014–15) be added to its regulated revenue in the 2015–20 regulatory control period, comprising:

- an EBSS carryover amount of $49.8 million ($2014–15) accrued during the 2010–15 regulatory control period
- a deferred negative carryover accrued during the 2005–10 regulatory control period under the Efficiency Carryover Mechanism (ECM). This reduced the proposed carryover by around $36 million ($2014–15).[4]

SA Power Networks excluded costs associated with an approved pass through event for vegetation clearing from the EBSS.

It also excluded costs in two other categories:

- major event day GSL payments associated with extreme weather events
- regulatory compliance costs associated with new reporting requirements.

[3] AER, *Efficiency benefit sharing scheme for electricity network service providers*, November 2013.

[4] SA Power Networks, *Regulatory proposal*, October 2014, p. 290.

Application of the EBSS in the 2015–20 regulatory control period

SA Power Networks proposed version two of the scheme would apply to it in the 2015–20 regulatory control period subject to specific exclusions and adjustments. It proposed we exclude the following cost categories from the scheme:

- debt raising costs
- self-insurance
- insurance premiums
- superannuation costs for defined benefits and retirement schemes
- the demand management innovation allowance (DMIA)
- non network alternatives
- major event day GSL payments.[5]

9.3 AER's assessment approach

Under the National Electricity Rules (NER) we must decide:

1. the revenue increments or decrements (if any) for each year of the 2015–20 regulatory control period arising from the application of the EBSS during the 2010–15 regulatory control period.[6]
2. how the EBSS will apply to SA Power Networks in the 2015–20 regulatory control period.[7]

The EBSS must provide for a fair sharing between service providers and network users of opex efficiency gains and efficiency losses.[8] We must also have regard to the following factors when implementing the EBSS:[9]

- the need to ensure that benefits to electricity consumers likely to result from the scheme are sufficient to warrant any reward or penalty under the scheme
- the need to provide the network service provider with continuous incentives to reduce opex
- the desirability of both rewarding the service providers for efficiency gains and penalising them for efficiency losses
- any incentives that service providers may have to capitalise expenditure
- the possible effects of the scheme on incentives for the implementation of non–network alternatives.

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5 SA Power Networks, *Regulatory proposal*, October 2014, p. 290.
6 NER, cl. 6.4.3(a)(5).
7 NER, cl. 6.3.2(a)(3); cl. 6.12.1(9).
8 NER, cl. 6.5.8(a).
9 NER, cl. 6.5.8(c).

9.3.1 Interrelationships

The EBSS is intrinsically linked to our opex revealed cost forecasting approach. Under this opex forecasting approach, the EBSS has two specific functions:

- To mitigate the incentive for a service provider to increase opex in the expected 'base year' to increase its forecast opex allowance for the following regulatory control period.
- To provide a continuous incentive for a service provider to make efficiency gains - service providers receive the same reward for an underspend and the same penalty for an overspend in each year of the regulatory control period.

Where we do not propose to rely on the revealed costs of a service provider in forecasting opex, this has consequences for the service provider's incentives to make productivity improvements and consequently our decision on how we apply the EBSS.

9.4 Reasons for preliminary decision

This section provides the reasons for our preliminary decision on the carryover amounts that arise from applying the EBSS during the 2010–15 regulatory control period, and how we will apply the EBSS in the 2015–20 regulatory control period.

9.4.1 Carryover amounts from the 2010–15 regulatory control period

We consider SA Power Networks should receive EBSS carryover amounts of –$4.7 million ($2014–15) from the application of the EBSS during the 2010–15 regulatory control period. Our calculation is in accordance with section 2.3 of the Electricity distribution network service providers EBSS.[10]

In the 2010–15 regulatory control period, SA Power Networks was subject to the Electricity distribution network service providers EBSS.[11] Under this scheme the EBSS carryover amounts are to be based on the difference between:

- approved forecast opex which is set out in our determination for SA Power Networks for the 2010–15 regulatory control period
- actual opex for the regulatory years from 2010–11 to 2013–14 less excluded cost categories.

The formulae for calculating the carryover amounts are set out in this scheme.[12]

The EBSS carryover we calculated (–$4.7 million) is different to the carryover SA Power Networks proposed ($13.9 million) because SA Power Networks:

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10 AER, *Electricity distribution network service providers Efficiency benefit sharing scheme*, June 2008, pp. 4−6.

11 AER, *Electricity distribution network service providers Efficiency benefit sharing scheme*, June 2008.

12 AER, *Electricity distribution network service providers Efficiency benefit sharing scheme*, June 2008, pp. 5−6.

1. treated movements in provisions as opex
2. excluded major event day GSL payments associated with extreme weather events
3. deferred a negative carryover accrued during the 2005–10 regulatory control period under the ECM.

The treatment of provisions

A provision is a type of accrual accounting practice. A business records an increase in a provision where it expects it will incur a future cost. Increases in provisions are often allocated to expenditure, and in particular, to opex. Accordingly if a business considers it is likely it will incur a future cost, or it expects the future cost will be different to that it has previously recorded, reported actual expenditure will increase. This means a business may sometimes record increases in expenditure when it estimates there is a change in a liability it faces. It may not actually expect to incur the cost for some time and the cost will not necessarily eventuate in the amount predicted.

We consider movements in provisions should be excluded from EBSS calculations.[13] This is because the increases in provisions do not represent the actual cost incurred in delivering network services when calculating efficiency gains or losses. This is consistent with the applicable EBSS.

> In calculating carryover gains or losses, the AER must be satisfied that the actual and forecast opex accurately reflects the costs faced by the DNSP in the regulatory control period.[14]

The EBSS is designed to reward businesses for becoming more efficient over time and penalise them for becoming less efficient. It is the actual costs a service provider incurs that we are concerned about when measuring efficiency improvements. In contrast, provisions are estimates of future costs a business expects to incur. A change in a provision is, in essence, a revised estimate. Estimating future costs usually involves making assumptions. These assumptions often change over time as new information becomes available, creating forecasting uncertainty. The uncertainty about provisions is what distinguishes them from other liabilities in the accounting standards.[15]

For example, to calculate the change in provisions for employee entitlements, a business must make assumptions about how much its current workers will be paid in the future, when it expects them to leave or retire, the rate at which they will take leave, as well as the time value of money. Significant discretion and judgment is involved in forming these assumptions. The valuation of the future liability can be very sensitive to small changes in assumptions. Accordingly, the amount charged to opex could change significantly with relatively minor changes in assumptions.

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[13] We didn't reverse provisions for self insurance because it was an excluded cost category.

[14] AER, *Electricity distribution network service providers Efficiency benefit sharing scheme*, June 2008, p. 7.

[15] AASB 137, clause 11, p. 13.

To reward or penalise a service provider for changes in provisions would reward or penalise it for changes in assumptions, not efficiency improvements. This undermines what the EBSS is intended to do, namely reward efficiency improvements and penalise declines in efficiency. While provisions might need to be treated in a particular way for accounting purposes, for regulatory pricing purposes, treating provisions as actual costs can lead to perverse outcomes. Based on SA Power Networks' calculations its consumers would pay for efficiency carryover amounts that do not reflect changes in the underlying level of efficiency in providing standard control services during the 2010–15 regulatory control period. Instead, a proportion of the proposed amount simply represents changes in assumptions SA Power Networks used in valuing its long service leave obligations during that period. To reward SA Power Networks for changes in assumptions would be contrary to the aims of the EBSS under the NER.

Excluded uncontrollable costs

SA Power Networks excluded costs for:

- major event day GSL payments associated with extreme weather events
- regulatory compliance costs associated with new reporting requirements.

SA Power Networks stated these categories were consistent with the provisions in its 2010 determination.[16] In that determination we said we would exclude other specific uncontrollable costs incurred and reported by (the then) ETSA Utilities during the 2010–15 regulatory control period, which we consider should be excluded after assessment against the relevant principles expressed in clause 6.6.1(j) of the NER and in the EBSS.[17] Clause 6.6.1(j) lists factors that the AER must take into account in making a cost pass through decision.

We will not exclude costs for either major event day GSL payments or regulatory compliance costs from the EBSS. In coming to our position we had regard to the relevant principles expressed in clause 6.6.1(j) of the NER and in the EBSS.[18] We note that clause 6.6.1(j)(8) of the pass through provisions allows us to consider any factors we consider relevant. In our assessment of whether or not to exclude these costs from the operation of the EBSS, we consider the interrelationships described in section 9.3.1 are relevant. The EBSS is intrinsically linked to our opex revealed cost forecasting approach. Therefore, before excluding cost categories from the EBSS we need to consider any interactions with our opex forecasting approach.

It is fundamental to the operation of the EBSS that if a service provider incurs a cost in the base year, that cost will be included in its base year for both forecasting opex in the next regulatory control period and calculating the EBSS. By including uncontrollable costs such as GSL payments and regulatory compliance costs in the EBSS, they are

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16 SA Power Networks, *Regulatory proposal*, October 2014, pp. 282−283.

17 AER, *ETSA Utilities distribution determination 2010–15*, 4 May 2010, p. 209.

18 In addition to the matters listed in clause 6.6.1(j)(1)−(7), clause 6.6.1(j)(8) of the pass through provisions allows us to consider any factors we consider relevant.

shared between the service provider and consumers in the same way as any efficiency gain (i.e. 30:70). Consumers share some of the uncontrollable cost through funding a higher opex allowance, while the service provider shares some of the cost through paying the EBSS penalty. SA Power Networks has included the costs incurred for GSL payments and regulatory compliance costs ($9.6 million) in the base year it used to calculate its opex forecast for the next period, resulting in a higher opex forecast. Consequently, those costs should also be included in the base year used to calculate the EBSS.

Alternately, we could accept SA Power Networks' proposal to exclude GSL payments and regulatory costs from the EBSS. However, if we did that, we would also need to reconsider how we are forecasting these costs as part of opex.

Another consideration is that SA Power Networks' treatment of uncontrollable cost increases is inconsistent with its treatment of uncontrollable cost decreases. Under SA Power Networks' proposed approach it is rewarded for any uncontrollable cost decreases which occurred between the third year and fourth year of the 2010–15 regulatory control period but is not penalised for any uncontrollable cost increases which occurred during that time. We see no reason why there should be asymmetrical treatment of uncontrollable cost movements. The EBSS is designed to be a symmetrical carryover mechanism:

> The EBSS rewards sustained efficiency gains through the operation of a symmetrical carryover mechanism.[19]

In its submission, the Energy Consumers Coalition of South Australia (ECCSA) did not consider that there should be any adjustment in the EBSS opex to reflect that SA Power Networks experienced more major event days in the current period than it expected or to reflect the impact of the new regulatory requirements for providing RINs. The ECCSA also notes that this interpretation is consistent with the new approach to EBSS where uncontrollable costs are no longer excluded from the EBSS.[20]

Deferred negative carryover

We will not apply the deferred negative carryover SA Power Networks accrued during the 2005–10 regulatory control period under the Efficiency Carryover Mechanism (ECM). The ECM was established by the Essential Service Commission of South Australia (ESCoSA) for the 2005–2010 regulatory control period. In our 2010–15 determination we stated the negative opex carryover accrued in respect of the ECM could be deferred to offset any positive carryover accrued in the 2015–20 regulatory control period.[21] However, the EBSS carryover we calculated from the application of the EBSS during the 2010–15 regulatory control period is not positive.

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19 AER, *Efficiency benefit sharing scheme for electricity network service providers*, November 2013, p. 4.

20 ECCSA, *Submission on SA Power Networks' regulatory proposal 2015–20*, 30 January 2015, p. 69.

21 AER, *ETSA Utilities distribution determination 2010-15*, p. 209.

This is consistent with SA Power Networks proposal which said 'to the extent that an overall net negative carryover results, the effect of the deferred negative carryover from the 2005–10 regulatory control period must be removed from the calculation, and this amount once again deferred to offset any future positive carryover amounts'.[22]

While there may be an option to defer the negative carryover accrued during the 2005–10 regulatory control period under the ECM for a further five years, we see no reason to do this.

9.4.2 How the EBSS will apply in the 2015–20 regulatory control period

We will apply version two of the EBSS to SA Power Networks. We consider the EBSS is needed to provide SA Power Networks with a continuous incentive to pursue efficiency gains during the 2015–20 regulatory control period. As we typically rely on a single year revealed cost approach to forecasting opex, we consider the EBSS is also needed to provide SA Power Networks with an incentive not to increase its opex in the expected base year.

Version two of the EBSS specifies our approach to determining the length of the carryover period, calculating the incremental efficiency gains and adjusting forecast or actual opex when calculating carryover amounts. These are detailed below.

Length of carryover period

The length of the carryover period for the 2015–20 regulatory control period will be five years. This aligns the EBSS carryover period with the total length of SA Power Networks' regulatory control periods.

Incremental efficiency gains

We will calculate incremental efficiency gains differently depending on whether they are in:

- the first regulatory year
- the second regulatory year to the penultimate regulatory year
- the final regulatory year.

We will do this according to the formulas set out in version two of the EBSS.[23]

When calculating actual opex under the EBSS we will adjust reported actual opex for the 2015–20 regulatory control period to reverse any movements in provisions. As outlined in section 9.4.1 above, for regulatory purposes we consider actual opex net of

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22 SA Power Networks, *Regulatory proposal*, October 2014, p. 290.

23 AER, *Efficiency benefit sharing scheme for electricity network service providers*, November 2013, pp. 5–7.

movement in provisions best reflects the actual opex incurred by the service provider during the regulatory control period.

Adjustments to forecast or actual opex when calculating carryover amounts

The EBSS also allows for exclusions of categories of costs from the EBSS where we do not forecast them using a single year revealed cost forecasting approach. This is designed to fairly share efficiency gains and losses. For instance, where a service provider achieves efficiency improvements, it receives a benefit through the EBSS and consumers receive a benefit through lower forecast opex in the next period. This is the way consumers and the service provider share in the benefits of an efficiency improvement.

If we do not use a single year revealed cost forecasting approach, lower actual opex will not necessarily be passed through to consumers. Consumers should not pay for EBSS benefits where they do not receive the benefits of a lower opex forecast.

We propose to exclude the following categories of costs from the EBSS:

- debt raising costs
- demand management innovation allowance (DMIA).

We agree with SA Power Networks' proposal to exclude debt raising costs and the DMIA. We have developed a category specific forecast for debt raising costs and the demand management allowance is defined by the demand management incentive scheme (DMIS). As neither forecast is based on revealed expenditure they should be excluded from the EBSS.

We do not propose to exclude opex on self-insurance, insurance, superannuation for defined benefits and retirement schemes or non-network alternatives from the EBSS. As outlined in attachment 7, our preferred approach is to forecast total opex using a single year revealed cost. This is consistent with SA Power Networks general forecasting approach. We see no reason to exclude these costs from the EBSS where we expect to use this method to forecast opex in the following regulatory control period.

Non network alternative expenditure is a means of deferring capital (network) expenditure. Previously we have excluded non network alternative costs from the EBSS because of the imbalance between opex and capex incentive schemes. However, with the introduction of the capex expenditure sharing scheme (CESS), this is no longer the case. Including non-network alternative costs in the EBSS maintains the balanced incentive for SA Power Networks to consider demand management and other forms of non-network alternative expenditure as an efficient substitute to network solutions.

We have not excluded major event day related duration GSL payments as proposed by SA Power Networks. SA Power Networks excluded major event day related GSL payments because they consider the timing and quantum of these payments is uncontrollable. We previously stated in developing version 2 of the EBSS that we

would no longer consider uncontrollability to be a reason for a cost category to be excluded from the EBSS.[24]

In addition to the excluded cost categories we will also:

- adjust forecast opex to add (subtract) any approved revenue increments (decrements) made after the initial regulatory determination. This may include approved pass through amounts.
- adjust actual opex to add capitalised opex that has been excluded from the RAB
- exclude categories of opex not forecast using a single year revealed cost approach for the regulatory control period beginning in 2020 where doing so better achieves the requirements of clause 6.5.8 of the NER.

In its submission, AGL proposed removing the efficiency benefit sharing scheme from the current regulatory framework. This was because it considered it was too difficult to identify actual operating efficiencies.[25]

We consider it is necessary to have the EBSS in place to encourage SA Power Networks to pursue operating efficiencies. Without the EBSS in place, SA Power Networks' incentive to pursue operating efficiencies will decline over the regulatory control period. It may even have an incentive to increase its opex if it considers will we use its actual opex as the basis for forecasting.

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[24] AER, *Explanatory statement, Efficiency benefit sharing scheme for electricity network service providers*, November 2013, p. 25.

[25] AGL, *Submission on s' regulatory proposal 2015–20*, 30 January 2015, p. 13.