



DRAFT DECISION
AusNet Services transmission
determination
2017–18 to 2021–22

Attachment 9 – Efficiency
benefit sharing scheme

July 2016

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AER reference: 53444

Note

This attachment forms part of the AER's draft decision on AusNet Services' revenue proposal 2017–22. It should be read with other parts of the draft decision.

The draft decision includes the following documents:

Overview

Attachment 1 – maximum allowed revenue

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

Attachment 12 – pricing methodology

Attachment 13 – pass through events

Attachment 14 – negotiated services

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Shortened forms

Shortened form	Extended form
AARR	aggregate annual revenue requirement
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
ASRR	annual service revenue requirement
augex	augmentation expenditure
capex	capital expenditure
CCP	Consumer Challenge Panel
CESS	capital expenditure sharing scheme
CPI	consumer price index
DRP	debt risk premium
EBSS	efficiency benefit sharing scheme
ERP	equity risk premium
MAR	maximum allowed revenue
MRP	market risk premium
NEL	national electricity law
NEM	national electricity market
NEO	national electricity objective
NER	national electricity rules
NSP	network service provider

Shortened form	Extended form
NTSC	negotiated transmission service criteria
opex	operating expenditure
PPI	partial performance indicators
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
SLCAPM	Sharpe-Lintner capital asset pricing model
STPIS	service target performance incentive scheme
TNSP	transmission network service provider
TUoS	transmission use of system
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 continuous 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 2014–17 regulatory control period, AusNet Services operated under version one of the Electricity transmission network service providers' EBSS, released in September 2007.¹

9.1 Draft decision

Our draft decision is to approve a positive EBSS carryover amount of \$5.1 million (\$2016–17) from the application of the EBSS in the 2014–17 regulatory control period.² However, we will update our calculation using AusNet Services' actual expenditure for 2015–16 in our final decision.

The difference between our calculations and AusNet Services' proposal is due to a different CPI adjustment and a different formula to calculate the EBSS carryover amount for 2016–17. Our draft decision for the EBSS carryover amounts from the 2014–17 regulatory control period is outlined in Table 9.1. Both AusNet Services' and our calculations assume 2014–15 has been used as the base year to forecast opex for the 2017–22 regulatory control period.³

Table 9.1 AER's draft decision on AusNet Services EBSS carryover amounts (\$ million, 2016–17)

	2017-18	2018-19	2019-20	2020-21	2021-22	Total
AusNet Services' proposed carryover	1.7	1.7	1.7	0.5	-	5.6
Draft decision	1.3	1.3	1.3	0.0	1.1	5.1

¹ AER, *Electricity transmission network service providers' - Efficiency benefit sharing scheme*, September 2007.

² AER, *Electricity transmission network service providers' - Efficiency benefit sharing scheme*, September 2007.

³ If the base year used to forecast opex changes in the revised proposal or final decision, it is likely our calculation of the carryover amount will change.

Source: AusNet Services, Regulatory proposal, October 2015, p. 169; AER analysis.

Our draft decision is to apply version two of the EBSS to AusNet Services in the 2017–22 regulatory control period.⁴ This is consistent with our Final framework and approach paper⁵ and AusNet Services' proposal. 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 used to calculate EBSS carryover amounts.⁶

Table 9.2 sets out our draft decision on AusNet Services' target opex for the EBSS (total opex less excluded categories⁷), against which we will calculate efficiency gains in the 2017–22 regulatory control period.

Table 9.2 AER's draft decision on AusNet Services forecast opex for the EBSS (\$ million, 2016–17)

	2017-18	2018-19	2019-20	2020-21	2021-22
Forecast opex	205.8	206.0	206.4	206.7	207.1
Less debt raising costs	-1.6	-1.6	-1.6	-1.5	-1.5
Less easement land tax	-114.3	-114.3	-114.3	-114.3	-114.3
Target opex for the EBSS	89.8	90.1	90.5	90.9	91.2

Source: AER analysis.

Note: Total forecast opex less forecast opex on easement land tax and debt raising costs. Forecast opex does not include AIS rebates or priority projects under the STPIS network capability function.

9.2 AusNet Services' proposal

9.2.1 Carryover amounts from the 2014–17 regulatory control period

AusNet Services proposed a \$5.6 million (\$2016–17) carryover be added to its regulated revenue in the 2017–22 regulatory control period.⁸

In estimating its proposed EBSS carryover amounts, AusNet Services adjusted its actual opex for the following costs:

- self-insurance
- easement land tax
- rebates under the Availability Incentive Scheme (AIS)

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

⁵ AER, *Final Framework and Approach for AusNet Services transmission determination 2017–22*, April, 2015, p. 16.

⁶ AER, *Efficiency benefit sharing scheme for electricity network service providers*, November 2013, Section 1.4, p. 9.

⁷ Easement land tax and debt raising costs.

⁸ AusNet Services, *Regulatory proposal*, October 2015, p. 169.

- debt raising costs
- the costs of priority projects approved under the network capability component of STPIS
- movements in provisions allocated to opex.⁹

It forecast opex for 2015–16 by applying its opex forecasting methodology. It stated it will replace this forecast with actual 2015–16 opex in its revised revenue proposal.¹⁰

AusNet Services noted that the formula to calculate the carryover amounts from 2014-15 should be:

$$E_{2014-15} = (F_{2014-15} - A_{2014-15}) - (F_{2013-14} - A_{2013-14}) + (F_{2011-12} - A_{2011-12}).$$

9.2.2 Application of the EBSS in the 2017–22 regulatory control period

AusNet Services proposed version two of the scheme would apply to it in the 2017–22 regulatory control period subject to specific exclusions. It proposed we exclude the following cost categories from the scheme:

- self-insurance
- easement land tax
- the cost of priority projects approved under the network capability component of the STPIS
- debt raising costs, only if we set debt raising costs using our current benchmark methodology.¹¹

9.3 Assessment approach

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

1. the revenue increments or decrements (if any) for each year of the 2017–22 regulatory control period arising from the application of the EBSS during the 2014–17 regulatory control period¹²
2. how the EBSS will apply to AusNet Services in the 2017–22 regulatory control period.¹³

The EBSS must provide for a fair sharing between service providers and network users of opex efficiency gains and efficiency losses.¹⁴ We must also have regard to the following factors when implementing the EBSS:¹⁵

⁹ AusNet Services, *Regulatory proposal*, October 2015, p. 168.

¹⁰ AusNet Services, *Regulatory proposal*, October 2015, p. 168.

¹¹ AusNet Services, *Regulatory proposal*, October 2015, p. 170.

¹² NER, cl. 6A.5.4(a)(5).

¹³ NER, cl. 6A.14.1(1)(iv) and cl. 6A.14.3(d)(2).

- 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.

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 draft decision

9.4.1 Carryover amounts from the 2014–17 regulatory control period

We consider AusNet Services should receive a positive EBSS carryover amount of \$5.1 million (\$2016–17) from the application of version one of the EBSS during the 2014–17 regulatory control period. However, we will update our calculation in our final decision when actual 2015–16 opex is available. Our calculation is in accordance with section 2.4 of version one of the Electricity transmission network service providers' EBSS.¹⁶

¹⁴ NER, cl. 6A.6.5(a).

¹⁵ NER, cl. 6A.6.5(b).

¹⁶ AER, *Electricity transmission network service providers Efficiency benefit sharing scheme*, September 2007, pp. 6–7.

In the 2014–17 regulatory control period, AusNet Services was subject to version one of the Electricity transmission network service providers' EBSS.¹⁷ 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 AusNet Services for the 2014–17 regulatory control period
- actual opex for the regulatory years from 2014–15 to 2015–16, less excluded cost categories.¹⁸

The formulas for calculating the carryover amounts are set out in this scheme.¹⁹

The EBSS carryover we calculated (\$5.1 million) is different to the carryover AusNet Services proposed (\$5.6 million) mainly because we used a different CPI adjustment and because we used a different formula to calculate the EBSS carryover amounts for 2016–17. We note that the carryover amounts will change when AusNet Services replaces estimated data with actual data for 2015–16 reported opex.²⁰

CPI adjustment

In its proposed EBSS model, AusNet Services converted nominal values to real 2016–17 dollars using a lagged CPI index (September quarter CPI).²¹ This contrasts with our approach which uses an unlagged March quarter CPI. We have adopted our approach to be consistent with our opex model.

[Consistency between the EBSS carryover accrued in 2014–17 and the opex forecast for 2017–22](#)

Because of the interaction between the carryover amounts accrued in 2014–17 and the starting point for the opex forecast for 2017–22, it is important we use the same CPI adjustments for both.

When we set the opex forecast from the 2014–15 base year, the reward (penalty) AusNet Services is paid for any underspend (overspend) in the base year needs to be consistent with the impact that underspend (overspend) has on the opex forecast. For example, if AusNet Services delivers lower opex in the base year it will:

- generate an increased EBSS carryover (marginal reduction in opex times the length of the carryover period)

¹⁷ AER, *Electricity transmission network service providers Efficiency benefit sharing scheme*, September 2007.

¹⁸ An estimate of 2015–16 opex will be used for the draft decision as actual opex for 2015–16 will not be available until after the draft decision.

¹⁹ AER, *Electricity transmission network service providers Efficiency benefit sharing scheme*, September 2007, pp. 6–7.

²⁰ Actual data for 2015–16 will be available after we publish the draft decision but before we publish the final decision.

²¹ AusNet Services, *Regulatory proposal*, October 2015, p. 168.

- reduce the starting point for the opex forecast, reducing the total opex forecast for 2016–20 (marginal reduction in opex times the length of the regulatory control period).

The size of the EBSS reward should correspond to the size of the reduced opex forecast. However, if the CPI used to calculate the efficiency gains is not the same as the CPI used to establish the starting point for the opex forecast, this will not be the case and AusNet Services may get a windfall gain or loss as a result. For instance, if we inflated AusNet Services' actual opex by less in estimating the EBSS than in forecasting its opex, consumers would pay for an EBSS carryover amount attributable to lower inflation but they would not receive the benefits of a lower opex forecast. In implementing the EBSS we must ensure that benefits to consumers likely to result from the scheme are sufficient to warrant any reward or penalty distributors earn under the scheme. If consumers do not receive the benefits of lower inflation through the opex forecast, we consider we should not use this modelling assumption in estimating the EBSS carryovers.

Estimated incremental efficiency gain in 2016–17

We consider AusNet Services used the incorrect formula to estimate its 'actual' opex for 2016–17.

At the time of a regulatory determination we typically do not know actual opex in the final regulatory year. Therefore, for the purposes of calculating the estimated incremental efficiency gain in that year, we must estimate final year opex. This estimate should be consistent with the estimate made when forecasting opex for the following period.

As this revenue determination is being made prior to the completion of the 2014–17 regulatory control period, we need to estimate the actual opex required to calculate gains or losses for 2016–17. Version one of the electricity transmission network service providers EBSS specifies that 'actual' opex for the final year of the current period, 2016–17 should be calculated using the formula:

$$A_{2016-17} = F_{2016-17} - (F_{2015-16} - A_{2015-16}).$$

This formula references 2015–16 because version one of the transmission EBSS assumes the base year used to forecast opex in the following period will be the second last year of the current period. The formula also assumes the service provider makes no incremental efficiency gains after the base year. Where differences arise between this estimate and the actual expenditure amount of 2016–17 it will be accounted for in the next determination.

In its proposal, AusNet Services estimated its 'actual' opex for 2016–17 using the formula specified in version one of the EBSS. However, as noted above, this formula assumes AusNet Services used 2015–16 as the base year to forecast opex for the

following period, which is not the case.²² AusNet Services used 2014–15 as the base year. The formula consistent with using 2014–15 as the base year should reference 2014–15 not 2015–16:

$$A_{2016-17} = F_{2016-17} - (F_{2014-15} - A_{2014-15}).^{23}$$

As we have also adopted 2014–15 as the base year to forecast opex, we have used this formula to estimate 'actual' opex for 2016–17.

Table 9.3 sets out the correct formula to estimate 2016–17 'actual opex' depending on the choice of base year used to forecast opex. To achieve continuous incentives using the formula specified in version one of the EBSS, we would need to adopt 2015–16 as the base year. Similarly, if in the final decision we change the base year for our opex forecast, we will need to change the formula we use to calculate 'actual' opex for 2016–17.

Table 9.3 Formula to calculate 2016–17 actual opex

Choice of base year	Formula for 2016–17 opex
2014–15	$A_{2016-17} = F_{2016-17} - (F_{2014-15} - A_{2014-15})$
2015–16	$A_{2016-17} = F_{2016-17} - (F_{2015-16} - A_{2015-16})$

Source: AER analysis.

9.4.2 Application of the EBSS in the 2017–22 regulatory control period

We will apply version two of the EBSS to AusNet Services in the 2017–22 regulatory control period.²⁴ We consider the EBSS is needed to provide AusNet Services with a continuous incentive to pursue efficiency gains. As we typically rely on a single year revealed cost approach to forecasting opex, we consider the EBSS is also needed to provide AusNet Services 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.

²² AusNet Services determined 'actual' opex for EBSS purposes for 2016–17 by adding the efficient benchmark increase we approved to 2015–16 opex. AusNet Services, *Regulatory proposal*, October 2015, p. 168.

²³ We note that this formula is not the same as the formula set out in the EBSS.

²⁴ AER, *Efficiency benefit sharing scheme for electricity network service providers*, November 2013.

Length of carryover period

The length of the carryover period for the 2017–22 regulatory control period will be five years. However, if the length of AusNet Services' regulatory control period starting in 2022 is not five years, we may determine a different carryover period length.²⁵

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.²⁶

When calculating actual opex under the EBSS, we will adjust reported actual opex for the 2017–22 regulatory control period to reverse any movements in provisions. Consistent with the approach we applied in implementing the EBSS for the 2014–17 regulatory control period, for regulatory purposes we consider actual opex net of movement in provisions best reflects the actual opex incurred by the service provider during the regulatory control period.²⁷

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:

- easement land tax
- debt raising costs
- rebates under the availability incentive scheme.

²⁵ AER, *Efficiency benefit sharing scheme for electricity network service providers*, November 2013, p. 7.

²⁶ AER, *Efficiency benefit sharing scheme for electricity network service providers*, November 2013, pp. 7–9.

²⁷ AER, *SP AusNet Transmission determination 2014-17, final decision*, 31 January 2014, p. 42.

As we do not forecast easement land tax and debt raising costs based on revealed expenditure, both categories should be excluded from the EBSS. We will also exclude rebates under AEMO's availability incentive scheme because including them in the EBSS would distort the incentives provided under the scheme.²⁸

AusNet Services proposed a debt raising cost opex allowance which is forecast on a revealed cost basis. Given this, AusNet Services is not seeking to exclude debt raising costs from the EBSS. However, AusNet Services stated that should we instead seek to set debt raising costs using our current benchmark methodology, then debt raising costs must also be excluded from the EBSS calculation. Otherwise it would be penalised and differences between actual and benchmark costs would not flow through to future opex allowances, affecting the sharing ratio of the EBSS. We agree with this last point. Therefore because we are not forecasting debt raising costs based on revealed expenditure, we have excluded them from the EBSS. Our standard approach is to forecast debt raising costs based on a benchmarking approach rather than a service provider's actual costs in a single year. This is to be consistent with the forecast of the cost of debt in the rate of return building block and is discussed in the equity and debt raising costs appendix to Attachment 3.

AusNet Services proposed to exclude self-insurance costs and the costs of priority projects approved under the network capability component of STPIS.

AusNet Services proposed to exclude self-insurance costs because it did not use a revealed cost forecasting approach. We would typically exclude such costs where we do not rely on a revealed cost forecasting approach. However, as noted in Attachment 7, we have forecast self-insurance based on revealed expenditure in a single year. Therefore, we have not excluded self-insurance from the EBSS. The Consumer Challenge Panel submitted that self-insurance costs should be part of the EBSS. It stated insurance costs are a standard part of the costs of any business.²⁹

AusNet Services proposed to exclude the costs of priority projects approved under the network capability component of STPIS to be consistent with our treatment of these costs during the current period. We agree with AusNet Services that we should exclude these costs from the EBSS. We do not include these costs in the opex forecast and it is important when comparing actual opex with the opex forecast that we compare like-with-like.

In addition to the excluded cost categories we will also:

- adjust forecast opex to add (subtract) any approved revenue increments (decrements) made after the 2017–22 regulatory determination. This may include approved pass through amounts.

²⁸ In Victoria, AEMO manages and operates the Availability Incentive Scheme (AIS). This scheme is designed to provide a financial incentive to owners of critical transmission assets (such as transformers and transmission lines) to schedule outages outside peak periods.

²⁹ CCP (subpanel 5), *Submission on AusNet Services' 2017–20 transmission determination proposal*, February 2016, p. 40.

- 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 2022 where doing so better achieves the requirements of clause 6A.6.5 of the NER.