



Draft decision

Endeavour Energy distribution determination

2015–16 to 2018–19

**Attachment 9: Efficiency benefit sharing
scheme**

November 2014

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Note

This attachment forms part of the AER's draft decision on Endeavour Energy's 2015–19 distribution determination. It should be read with other parts of the draft decision.

The draft 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

Attachment 12 – Demand management incentive scheme

Attachment 13 – Classification of services

Attachment 14 – Control mechanisms

Attachment 15 – Pass through events

Attachment 16 – Alternative control services

Attachment 17 – Negotiated services framework and criteria

Attachment 18 – Connection policy

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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	aggregate service revenue requirement
augex	augmentation expenditure
capex	capital expenditure
CCP	Consumer Challenge Panel
CESS	capital expenditure sharing scheme
CPI	consumer price index
CPI-X	consumer price index minus X
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

Shortened form	Extended form
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
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 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 a continuous incentive for distributors to pursue efficiency improvements in operating expenditure.

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 2009–14 regulatory control period Endeavour Energy operated under the *EBSS for the ACT and NSW 2009 distribution determinations*, which was released in February 2008.¹

9.1 Draft decision

We are not satisfied Endeavour Energy's proposed EBSS carryover amounts comply with the requirements in the EBSS Endeavour Energy operated under during the 2009–14 regulatory control period. The difference between our calculations of the EBSS carryover amounts and Endeavour Energy's proposal is mainly due to the treatment of expenditure recorded as a provision. Our draft decision for the EBSS carryover amounts from the 2009–14 period is outlined in Table 9-1.

Table 9-1 AER's draft decision on Endeavour Energy's EBSS carryover amounts (\$ million, 2013–14)

	2014–15	2015–16	2016–17	2017–18	2018–19	Total
Endeavour Energy's proposed carryover	95.0	30.0	37.8	32.4	0.0	195.2
Draft decision	79.3	12.0	24.9	-22.8	0.0	93.4

Source: AER analysis; *Endeavour Energy, RIN template response*, table 7.5.1.

As it is uncertain whether, and to what extent, we are likely to rely on Endeavour Energy's revealed costs in the 2014–19 period in forecasting Endeavour Energy's efficient opex in the future, our draft decision is that no expenditure will be subject to the EBSS during the 2015–19 regulatory control period.²

¹ AER, *Efficiency benefit sharing scheme for the ACT and NSW 2009 distribution determinations*, February 2008.

² We have previously determined that the EBSS would apply to Endeavour Energy in the 2014–15 regulatory control period as if it were the first year of the 2015–19 regulatory control period (that is, the first year in a period running from 2014–19). The effect of our draft decision is that no expenditure will therefore be subject to the EBSS during the 2014–19 period. See AER, *Ausgrid, Endeavour Energy, Essential Energy, ActewAGL - Transitional distribution decision 2014–15*, 16 April 2014, pp. 47–48.

9.2 Proposal

Carryover amounts accrued during the 2009–14 regulatory control period

Endeavour Energy proposed a total EBSS carryover amount of \$195.2 million (\$2013–14) be added to its regulated revenue in the 2014–19 period arising from the application of the EBSS in the 2009–14 regulatory control period.³

Application of the EBSS in the 2014–19 period

Endeavour Energy proposed that version two of the EBSS should be applied in the 2014–19 period with a modification. It proposed that actual opex should be adjusted for actual actuarial assessment for employee related entitlement provisions. It did not propose any other adjustments.⁴

9.3 Assessment approach

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

1. the revenue increments or decrements (if any) for each regulatory year of the 2014–19 period arising from the application of the EBSS during the 2009–14 regulatory control period.⁵
2. how the EBSS will apply to Endeavour Energy in the 2014–19 period.⁶

The EBSS must provide for a fair sharing between service providers and network users of opex efficiency gains and efficiency losses.⁷ We must also have regard to the following factors when implementing the EBSS:⁸

- 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 Endeavour Energy 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.

9.4 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.

³ Endeavour Energy, *Revenue proposal*, Attachment 4.3.

⁴ Endeavour Energy, *Revenue proposal*, p. 27.

⁵ NER, clause 6.4.3(a)(5).

⁶ NER, clause 6.3.2(a)(3); clause 6.12.1(9).

⁷ NER, clause 6.5.8(a).

⁸ NER, clause 6.5.8(c).

- 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.

9.5 Reasons for draft decision

This section provides the reasons for our draft decision on the EBSS carryover amounts from the 2009–14 regulatory control period and the reasons why no expenditure will be subject to the EBSS for the 2014–19 period.

9.5.1 Carryover amounts accrued during the 2009–14 regulatory control period

We consider Endeavour Energy should receive EBSS carryover amounts of \$93.4 million (\$2013–14) from the application of the EBSS during the 2009–14 regulatory control period. Our calculation is in accordance with section 2.3 of the EBSS for the ACT and NSW 2009 distribution determinations.⁹

In the 2009–14 regulatory control period, Endeavour Energy was subject to the *EBSS for the ACT and NSW 2009 distribution determinations*.¹⁰ 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 Endeavour Energy for the 2009–14 regulatory control period
- actual opex for the regulatory years from 2009–10 to 2012–13 less excluded cost categories.

The formulae for calculating the carryover amounts are set out in this scheme.¹¹

The difference between Endeavour Energy's proposed EBSS carryover calculated for the 2009–14 regulatory control period (\$195.2 million) and the carryover amount we calculated (\$93.4 million) is mainly due to 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.

In the 2009–14 regulatory control period, Endeavour Energy reported increases in provisions as actual opex. This affected the reported EBSS carryover amounts - particularly changes in provisions for long service leave entitlements.

⁹ AER, *Efficiency benefit sharing scheme for the ACT and NSW 2009 distribution determinations*, February 2008, pp. 4-5.

¹⁰ AER, *Efficiency benefit sharing scheme for the ACT and NSW 2009 distribution determinations*, February 2008.

¹¹ AER, *Efficiency benefit sharing scheme for the ACT and NSW 2009 distribution determinations*, February 2008, pp. 4-5.

We consider that movements in provisions should be excluded from EBSS calculations. 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.¹²

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.¹³

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.

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 Endeavour Energy's calculations its consumers would pay for efficiency carryover amounts that do not reflect changes in the underlying level of efficiency in providing the service Endeavour Energy achieved during the 2009–14 regulatory control period. Instead a significant proportion of the proposed amount simply represents changes in assumptions Endeavour Energy used in valuing its long service leave obligations during that period. These outcomes would be contrary to the aims of the EBSS under the NER.

Endeavour Energy also made some errors in its calculation of the EBSS carryover amounts. Specifically, Endeavour Energy should have excluded forecast insurance from its opex target as this cost category was an approved excluded cost category. This inflated its EBSS carryover by \$7 million (\$2013–14). Endeavour Energy also should have excluded forecast non-network opex from its opex target, not just the demand management incentive allowance (DMIA) component. This inflated its carryover by a further \$1.9 million (\$2013–14).

Many stakeholders raised concerns about Endeavour Energy's proposed EBSS carryover of \$195.2 million (\$2013–14). Submissions questioned if this carryover amount was a result of genuine efficiency gains that would benefit consumers.¹⁴ Stakeholders were also concerned that considering the NSW distribution service providers' generally poor efficiency, the large EBSS carryover amounts

¹² AER, *Efficiency benefit sharing scheme for the ACT and NSW 2009 distribution determinations*, February 2008, p. 6.

¹³ AASB 137, clause. 11, p. 13.

¹⁴ CCP, *Submission on NSW DNSPs regulatory proposals 2014-19 (updated)*, 15 August 2014, p. 30. AGL, *Submission on NSW DNSPs regulatory proposals*, 8 August 2014, pp.15-18. EMRF, *Submission to NSW DNSPs regulatory proposals*, July 2014, p 44. EUAA, *Submission on NSW DNSPs regulatory proposals*, 8 August 2014, pp. 3, 11. NGF, *Submission to NSW DNSPs regulatory proposals*, 30 June 2014, pp. 1, 9-10. PIAC, *Submission to NSW DNSPs regulatory proposals*, 8 August 2014, pp. 16-17.

reflected an overly generous opex allowance rather than genuine efficiency savings. As discussed above, a significant share of the carryover amounts was driven by the treatment of provisions which we have addressed.

9.5.2 Decision on how to apply the EBSS to Endeavour Energy in the 2015–19 regulatory control period

Our draft decision is that no expenditure will be subject to the EBSS in the 2015–19 regulatory control period.¹⁵

In implementing the EBSS we must consider whether benefits to electricity consumers likely to result from the scheme are sufficient to warrant any reward or penalty under the scheme. Several stakeholders asked us to review the benefit to consumers of applying the EBSS¹⁶ and some submitted that we should not apply it.¹⁷ We discuss why we do not consider Endeavour Energy's customers would benefit from us applying the EBSS in the 2015–19 regulatory control period below.

The EBSS is intrinsically linked to the revealed cost forecasting approach for opex. If a service provider has operated under an effective incentive framework, and sought to maximise its profits, the actual opex incurred in a base year should be a good indicator of the efficient opex required. In those cases, we rely on the revealed costs in the base year as the basis for our opex forecast.

There are two potential incentive problems with this forecasting approach when an EBSS is not in place:

1. A service provider has an incentive to increase opex in the expected base year to increase its forecast opex allowance for the following regulatory control period.
2. A service provider's incentive to make sustainable change to its practices, and reduce its recurrent opex, declines as the regulatory control period progresses. It then increases again after the base year used to forecast opex for the following regulatory control period.

We address these issues by applying an EBSS in combination with a revealed cost forecasting approach. Therefore, the EBSS serves these specific functions based on the way opex is forecast in future periods. The current national version of the EBSS that has been made by the AER after consultation with relevant stakeholders is inherently based on forecasts of operating expenditure from a service provider's revealed costs.

In our *Expenditure forecast assessment guideline*, we stated our preference is to continue with the revealed cost forecasting approach for forecasting opex. However, we noted that we will test whether the revealed costs of a service provider are efficient. If we find that the base year opex is materially inefficient, we will make an adjustment. This means that where we have evidence that a service provider's opex is materially inefficient, we will place less weight on its revealed costs in forecasting opex.

¹⁵ We have previously determined that the EBSS would apply to Endeavour Energy in the 2014–15 regulatory control period as if it were the first year of the 2015–19 regulatory control period (that is, the first year in a period running from 2014–19). The effect of our draft decision is that no expenditure will therefore be subject to the EBSS during the 2014–19 period. See AER, *Ausgrid, Endeavour Energy, Essential Energy, ActewAGL - Transitional distribution decision 2014–15*, 16 April 2014, pp. 47–48.

¹⁶ CCP, *Submission on NSW DNSPs regulatory proposals 2014–19 (updated)*, 15 August 2014, p. 30. AGL, *Submission on NSW DNSPs regulatory proposals*, 8 August 2014, pp. 15–18. PIAC, *Submission to NSW DNSPs regulatory proposals*, 8 August 2014, pp. 16–17.

¹⁷ EUAA, *Submission on NSW DNSPs regulatory proposals*, 8 August 2014, pp. 3, 11.

Economic benchmarking indicates that Endeavour Energy's opex is higher than opex incurred by a benchmark efficient service provider. This is discussed in the base opex appendix to attachment 7. We also note that Endeavour Energy has just over three years before it submits its next regulatory proposal. Based on these factors, it is uncertain whether and to what extent we are likely to rely on Endeavour Energy's revealed costs in the 2014–19 period in forecasting opex in the following regulatory control period.

If we do not use a revealed costs approach for forecasting opex in the future, there is not a strong reason to apply the current version of the EBSS.

For instance we consider Endeavour Energy will already face an incentive to make efficiency improvements while its actual opex is more than that of a benchmark efficient service provider. We do not need to apply an EBSS to further strengthen its incentives.

In the case where we apply the EBSS in the 2015–19 regulatory control period but do not rely on revealed costs to set forecast opex in the next regulatory control period, there are some potentially perverse outcomes. For instance a service provider will face high penalties if it continues to make incremental efficiency losses. It will receive negative EBSS carryovers as well as a benchmark opex allowance. This outcome is not consistent with what we are seeking to achieve with the application of the EBSS nor is it consistent with the implementation requirements for an EBSS set out in the NER.¹⁸

Endeavour Energy could make efficiency improvements in the 2014–19 period such that it benchmarks well compared to a benchmark efficient service provider. In that case, we would intend to rely on its revealed costs to forecast opex, consistent with our preferred approach in the *Expenditure forecast assessment guideline*.

¹⁸ NER, cl.6.5.8