FINAL DECISION
Endeavour Energy distribution determination
2015−16 to 2018−19

Attachment 9 – Efficiency benefit sharing scheme

April 2015

AUSTRALIAN ENERGY REGULATOR

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Note

This attachment forms part of the AER's final decision on Endeavour Energy's revenue proposal for 2015–19. It should be read with other parts of the final decision.

The final 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 mechanism

Attachment 15 - Pass through events

Attachment 16 - Alternative control services

Attachment 17 - Negotiated services framework and criteria

Attachment 18 - Connection policy

Attachment 19 - Analysis of financial viability

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
PTRM	post-tax revenue model
RAB	regulatory asset base
RBA	Reserve Bank of Australia
repex	replacement expenditure
RFM	roll forward model

Shortened form	Extended form
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 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 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 Final 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 provisions recorded as opex. Our final decision for the EBSS carryover amounts from the 2009–14 regulatory control period is outlined in Table 9.1. It is the same as our draft decision.

Table 9.1 AER's final 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	95.1	31.7	39.2	31.0	0.0	197.0
Final decision	79.3	12.0	24.9	-22.8	0.0	93.4

Source: AER analysis; Endeavour Energy, PTRM in revised proposal for the 2015–19 regulatory control period.

We have determined that version two of the EBSS will apply to Endeavour Energy during the 2015–19 regulatory control period.[2] This is a change in position from the draft decision.

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

When we apply version two of the EBSS we will exclude debt raising costs and expenditure funded from DMIA in calculating the EBSS carryover amounts. Table 9.2 sets out our final decision on Endeavour Energy's target opex for the EBSS against which we will calculate the EBSS carryover amounts in the 2014–19 period.

Table 9.2 Forecast opex for EBSS purposes ($ million, 2013–14)

	2014–15	2015–16	2016–17	2017–18	2018–19
Forecast opex for EBSS purposes	235.8	239.5	243.3	247.5	252.3

Source: AER analysis

9.2 Draft decision

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

We considered 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 was in accordance with section 2.3 of the EBSS for the ACT and NSW 2009 distribution determinations.

Under the EBSS for the ACT and NSW 2009 distribution determinations the EBSS carryover amounts are to be based on the difference between:[3]

- approved forecast opex which is set out in our determination for Endeavour Energy for the 2009–14 regulatory control period, and
- actual opex for the regulatory years from 2009–10 to 2012–13 and estimated opex for 2013–14 less opex on excluded cost categories.

Our draft decision amount was mainly different to that proposed by Endeavour Energy due to the treatment of provisions.

A provision is a type of accrual accounting practice. A business records a provision for an anticipated cost when it expects it will incur a cost in the future but the amount and timing of the cost has not yet crystallised. For accounting purposes, increases in provisions are typically 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 amount of the cost will be higher 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

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

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

predicted. Similarly, if a business no longer considers it will incur a future cost, or it expects the amount of the cost will be lower than that it has previously recorded, reported actual expenditure will decrease.

In the 2009–14 regulatory control period, Endeavour Energy's opex was materially affected by changes in the valuation of its employee entitlement provisions. If the AER accepted changes in provisions as actual opex it would materially affect Endeavour Energy's EBSS carryover amounts.

We considered that changes in provisions should not be treated as actual opex for 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 which states:

> 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.[4]

We consider the actual amount incurred and charged against the provision in the regulatory control period better reflects the cost faced by the service provider. This is the amount actually paid by the service provider in meeting its liability. The difference between the recorded increase in the provision and the amount incurred and charged against the provision is the movement in provisions. Our approach therefore is to remove the movement in provisions from a service provider's reported actual opex when calculating the EBSS carryover amounts. We have adopted this approach since the Victorian electricity distribution price review for the 2011–15 regulatory control period.[5]

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.[6]

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

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

5 AER, *Victorian electricity distribution network service providers - Distribution determination 2011–2015 Draft decision*, June 2010, pp. 586-587

6 AASB 137, clause. 11, p. 13.

small changes in assumptions. Accordingly, the amount charged to opex could change significantly with relatively minor changes in assumptions.

In implementing the EBSS we have regard to the desirability of both rewarding service providers for efficiency gains and penalising service providers for efficiency losses.[7] We considered that 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. 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 distribution services during the 2009–14 regulatory control period. We considered that to reward Endeavour Energy for changes in assumptions would be contrary to the aims of the EBSS under the NER.

Our proposed EBSS carryover amounts were also different to Endeavour Energy because of different calculations regarding excluded cost categories. In our final decision for Endeavour Energy we outlined the forecast opex we would apply for EBSS purposes. This forecast excluded forecast opex on the following categories:

- debt raising costs
- self insurance costs
- insurance costs
- superannuation costs relating to defined benefits and retirement schemes
- non network alternatives costs.

In its EBSS calculations, Endeavour Energy did not exclude forecast opex on insurance and did not exclude the full excluded forecast opex amount for non network alternatives. When calculating the EBSS amounts for Endeavour Energy, the forecast opex amount we applied for the 2009–14 regulatory control period was consistent with the amount we set out in our final decision for the 2009–14 regulatory control period.[8]

9.2.2 Application of the EBSS in the 2015–19 regulatory control period

Our draft decision was that no expenditure will be subject to the EBSS during the 2015–19 regulatory control period.[9]

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7 NER, cl. 6.5.8(c)(1)

8 Integral Energy, *NSW distribution determination 2009–10 to 2013–14*, 28 April 2009, p. xlii.

9 We have previously determined that the EBSS that applied to the Endeavour Energy in the 2009-14 regulatory control period will apply to Endeavour Energy in the 2014–15 transitional regulatory control period but modified to be in terms of version 2 of the EBSS as if the transitional regulatory control period was the first year of the subsequent regulatory control period 2015–19 (that is, the first year in a period running from 2014–19). The effect of our draft decision is that no expenditure will be subject to the EBSS during the 2014–19 period. See AER,

We noted that the decision on how to apply the EBSS is intrinsically linked to the revealed cost forecasting method for opex.

Economic benchmarking indicates that Endeavour Energy's opex is higher than opex incurred by several other providers in the NEM. In our draft decision, we also noted 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. We considered that 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 considered we did not need to apply an EBSS to further strengthen its incentives.

9.3 Endeavour Energy's revised proposal and submissions

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

Endeavour Energy proposed a total EBSS carryover amount of $197.0 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.

Endeavour Energy did not agree with our draft decision. It considered:

- there is no rule that explicitly provides discretion to exclude a cost category after the determination for the 2009–14 regulatory control period
- movements in provisions in employee related costs are actual costs incurred by Endeavour Energy
- retrospective adjustments may dis-incentivise service providers because there is a risk that service providers will consider we will review or revise other efficiency gains or losses and jeopardise the incentive features of the EBSS
- even if it agreed with our contention that these are not actual costs, we made an error by not adjusting forecast opex to exclude the amount from forecast opex for the 2009–14 period.[10]

Endeavour Energy, Endeavour Energy, Essential Energy, ActewAGL - Transitional distribution decision 2014–15, 16 April 2014, pp. 47–48; AER, *Efficiency Benefit Sharing Scheme for Electricity Network Service Providers*, November 2013.

[10] Endeavour Energy, *Revised proposal*, pp. 77-79.

In support of its proposal, Endeavour Energy also submitted a report it commissioned from Ernst and Young.[11]

PIAC and the EMRF agreed with our draft decision to adjust for provisions.[12] The EMRF noted that provisions can be driven by factors external to the service provider. It considered that to reward service providers for factors external to the business would be contrary to the EBSS which aims to reward a service provider for the actions it takes to reduce its costs.[13]

9.3.2 Application of the EBSS in the 2015–19 regulatory control period

Endeavour Energy considered that if we accept its proposal then the EBSS should apply. However if we substitute a lower, unachievable amount than it forecast then it agrees that an EBSS should not apply.[14]

Origin Energy and the CCP agreed with our draft decision not to subject any expenditure during the 2014–19 period to the EBSS.[15] Origin Energy noted that the EBSS would reward the NSW service providers in moving from an inefficient base to an efficient base.[16]

PIAC and the EMRF did not agree with our draft decision not to subject any expenditure to the EBSS.[17] The EMRF considered that this would affect the balance between capex and service incentives.[18]

9.4 AER's 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[19]

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11 Ernst and Young, *Accounting for provisions; assessing the AER's approach*, 19 January 2015.

12 EMRF, *Response to revised proposals from Endeavour Energy, Endeavour Energy and Essential Energy,* February 2015, pp. 64-65; PIAC, *Submission to the AER"s draft determination for Endeavour Energy, Endeavour Energy and Essential Energy,* 13 February 2015, p. 20.

13 EMRF, *Response to revised proposals from Endeavour Energy, Endeavour Energy and Essential Energy,* February 2015, pp. 64-65.

14 Endeavour Energy, *Revised proposal*, p. 5.

15 CCP, *Response to NSW draft determinations and revised proposals from electricity distribution networks,* p. 53; Origin Energy, *Submission to AER draft determination for NSW electricity distributors,* p. 20.

16 Origin Energy, *Submission to AER draft determination for NSW electricity distributors,* p. 21.

17 PIAC, *Submission to the AER"s draft determination for Ausgrid, Endeavour Energy and Essential Energy,* 13 February 2015, p. 20; EMRF, *Response to revised proposals from Ausgrid, Endeavour Energy and Essential Energy,* February 2015, p. 64.

18 EMRF, *Response to revised proposals from Ausgrid, Endeavour Energy and Essential Energy,* February 2015, p. 64.

19 NER, cl. 6.4.3(a)(5).

2. how any applicable EBSS is to apply to Endeavour Energy in the 2014–19 period.[20]

The EBSS must provide for a fair sharing between service providers and network users of opex efficiency gains and efficiency losses.[21] We must also have regard to the following factors when implementing the EBSS:[22]

- 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 service providers with continuous incentives, so far as is consistent with economic efficiency, to reduce opex
- the desirability of both rewarding 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.

9.4.1 Interrelationships

The EBSS is intrinsically linked to a revealed cost forecasting approach for opex. Under this 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 there are consequences for a service provider's incentives to make productivity improvements. This affects our decision on how we apply the EBSS. We have taken into account the interrelationship between the EBSS and our approach to opex forecasting, in reaching our decision.

Incentives to reduce opex may also affect a service provider's incentives to undertake capex. We take into account of these interactions in developing and implementing the EBSS as well as the developing the CESS. For instance:

- In developing and implementing the EBSS, the AER must have regard to any incentives that service providers may have to capitalise operating expenditure as

[20] NER, cl. 6.3.2(a)(3); cl. 6.12.1(9).
[21] NER, cl. 6.5.8(a).
[22] NER, cl. 6.5.8(c).

well as the possible effects of the scheme on incentives for the implementation of non-network alternatives.[23]

- In developing the CESS, the AER must take into account the interaction of the scheme with other incentives that service providers may have in relation to undertaking efficient opex or capex as well as the capex objectives and, if relevant, the opex objectives.[24]

9.5 Reasons for final decision

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

We have considered Endeavour Energy's revised proposal and have determined not to depart from our draft decision to approve an EBSS carryover amount of $93.4 million ($2013–14) from the application of the EBSS in the 2009–14 regulatory control period. We are satisfied that this amount is consistent with the terms of the EBSS and provides a fair sharing between Endeavour Energy and distribution network users of the actual efficiency gains made by Endeavour Energy over the 2009–14 regulatory control period, as required by the NER.

We disagree that our adjustment for movements in provisions is not allowed for under the EBSS. The EBSS states that:

> the AER must be satisfied that the actual and forecast opex accurately reflects the costs faced by the DNSP in the regulatory control period.[25]

We are not satisfied that the changes in provisions Endeavour Energy reported as opex accurately reflects the costs it faced in the 2009–14 regulatory control period. This is because we consider changes in provisions reflect changes in estimates of costs that Endeavour Energy expects to incur. Thus for the purposes of calculating the EBSS carryover amounts, we have removed these estimates from Endeavour Energy's reported opex. We instead consider the amount Endeavour Energy incurred and charged against the provision better reflects the costs Endeavour Energy faced in meeting its obligations in the 2009–14 regulatory control period.

Changes in provisions reflect changes in expectations about when a cost will be incurred or the amount that will be incurred. A business re-estimates the value of its obligations every year so the amount recorded in its financial accounts best reflects current estimates. A revaluation may be based on different methods or assumptions for estimating those obligations than the year before.

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[23] NER, cl. 6.4.3(a)(4),(5).

[24] NER, cl. 6.5.8A(d)

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

Changes in the estimated value of Endeavour Energy's provisions were reported by Endeavour Energy as opex. Assumptions underlying these estimates may help in ensuring Endeavour Energy's reported opex meets accounting standards. However, we disagree that this is something that should be rewarded or penalised for through the EBSS. Changes in assumptions about estimates for the future from year to year do not reflect efficiency gains that have been realised. The EBSS must provide for a fair sharing of efficiency gains and losses between Endeavour Energy and its customers.[26] We consider to significantly reward Endeavour Energy for changes in estimates of costs which are yet to materialise, and which are attributable to changes in underlying assumptions, would not be consistent with this objective or the NEO.

In addition, we have had regard to:

- 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 for service providers[27]
- the desirability of both rewarding the service provider for efficiency gains and penalising it for efficiency losses.[28]

If we were to accept Endeavour Energy's approach, its customers would pay more for a network service for no identifiable benefit. Moreover, we do not consider it desirable to reward Endeavour Energy for changes in provisions under the EBSS when they, in effect, amount to changes in assumptions and not efficiency gains.

The changes in provisions which have affected Endeavour Energy's reported opex the most over the 2009–14 regulatory control period are its provisions for employee benefits. This is made up of provisions for long service leave, annual leave, a maturing allowance benefit[29] and also sick leave entitlements available to a limited number of Endeavour Energy's employees. The estimated value of Endeavour Energy's provisions for employee benefits materially increased in 2011–12 but then decreased again in 2012–13. This was driven largely by changes in discount rate and salary growth assumptions used to value Endeavour Energy's provisions for long service leave and maturing allowance. This reflected a change in assumption used to value these entitlements, rather than an efficiency gain or loss.

Changes in opex and the value of Endeavour Energy's provisions for employee benefits in the 2009–14 regulatory control period are illustrated in Figure 9.1. As outlined below, there are similarities in the change in the value of Endeavour Energy's

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[26] NER, cl. 6.5.8(a).

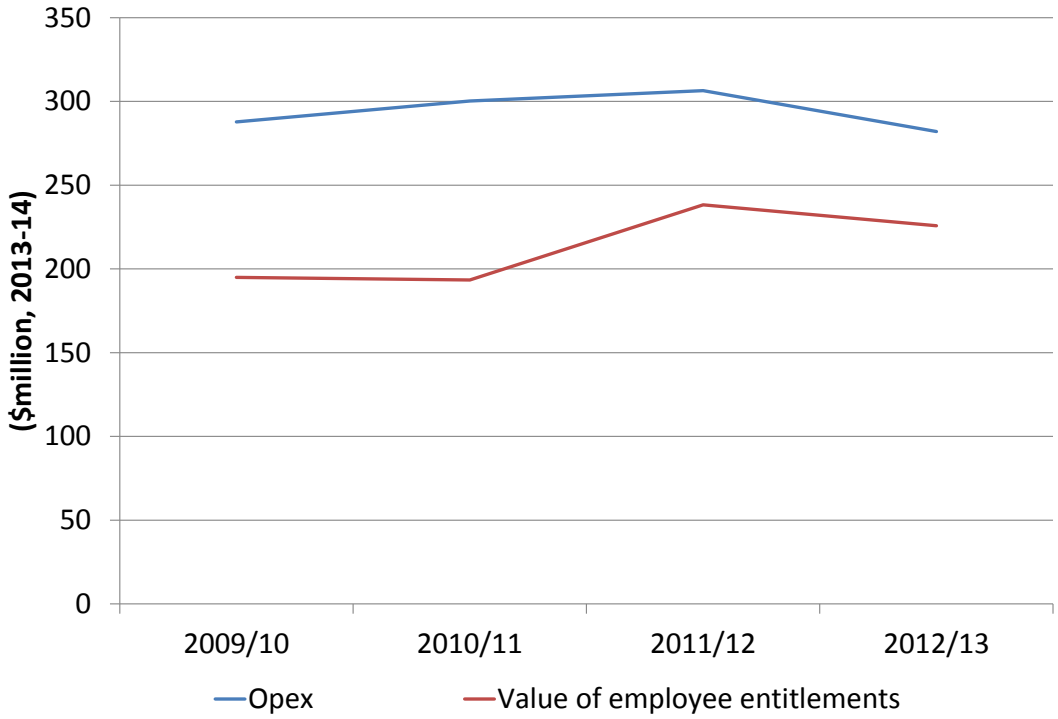
[27] NER, cl. 6.5.8(c)(1).

[28] NER, cl. 6.5.8(c)(3).

[29] Employees who were employed prior to 27 July 1996, and who have served 10 years with Endeavour Energy or any of its predecessors, are entitled to a maturing allowance where employees exit due to retirement, ill health retirement, death or redundancy. After serving at least 10 years, employees are entitled to a payment of 1 week's pay per completed year of service. For those who have served more than 20 years, the payment is 2 weeks' pay per completed year of service. This is In addition to long service leave benefits. Provisions for sick leave are a relatively small component of Endeavour Energy's reported employee benefits provision.

provisions for employee benefits in 2011–12 and 2012–13 to the change in Endeavour Energy's reported opex. This indicates the effect of the change in provisions on Endeavour Energy's opex.[30]

Figure 9.1 Endeavour Energy's reported opex and valuation of provisions for employee benefits ($ million, 2013–14)



Source: Endeavour Energy, Economic benchmarking - Regulatory Information Notice response 2009–10 to 2012–13.

Under Endeavour Energy's proposed approach to calculating the EBSS, its reported change in the valuation of its employee benefits contributes to a relative efficiency loss in opex in 2011–12 and a relative efficiency gain in opex in 2012–13. Under the formula we use to calculate the EBSS carryover amounts, the efficiency gains from 2012–13 have a greater impact on Endeavour Energy's carryover amounts than the efficiency loss in 2011–12.[31] In net terms, this means that Endeavour Energy would effectively be rewarded because of changes in discount rates and salary growth assumptions used in valuing its employee entitlements over the 2009–14 regulatory control period.

[30] Endeavour Energy has recognised that this was a material driver of its opex in the 2009–14 regulatory control period. For instance, see Endeavour Energy, Regulatory proposal for the 2015–19 regulatory control period, p. 74.

[31] The EBSS is designed to ensure the service providers receives the same reward or penalty for an efficiency gain or loss regardless of the year in which it occurs. Without the EBSS an efficiency gain made later in the regulatory control period is retained for less time than one made earlier in the period. This is why outcomes later in the regulatory control period are given greater weighting when calculating the EBSS carryover amounts.

Changes in discount rates used to value Endeavour Energy' employee entitlements in different years of the 2009–14 regulatory control period should not affect the EBSS carryover amounts. The cost of employee entitlements which Endeavour Energy must pay out when an employee takes leave, retires or is made redundant does not change because of the discount rates used. Discount rates only convert the estimated future value of Endeavour Energy's employee benefit obligations to an estimated present value required to settle the obligation. In essence, this amount only reflects an assumption of the amount that should be invested today at a particular rate to meet Endeavour Energy's current obligations when they crystallise in the future. As the amount to be paid out by Endeavour Energy does not change when a different discount rate is used, it does not reflect an efficiency gain or loss in opex.

Under Endeavour Energy's proposed approach, the reason the discount rates had a material impact on the value of its employee entitlements is because it used a different methodology to value these entitlements during the 2009–14 regulatory control period.

For its valuation of its employee entitlements in 2009–10 and 2010–11 Endeavour Energy based on its valuation on advice from Cumpston Sarjeant. It advised Endeavour Energy that the discount rate or rates should be based on market yields in Australian Government bonds.[32] However it advised that the salary inflation and discount rate assumptions should be a matched pair determined by the discount rate net of forecast salary rate increases.[33] The discount rate net of general salary growth it determined as at February 2009 was 2.25 per cent.[34] This technique reduces the volatility in the value of provisions for employee obligations where there are fluctuations in bond rates. It would reduce the effect of actuarial assumptions on actual opex and therefore reduce the effect that actuarial assumptions have on the EBSS.

However, for its valuation of its employee entitlements for 2011–12, Cumpston Sarjeant was asked by Endeavour Energy to value its employee entitlements by setting the discount rate and salary growth assumptions independently of each other, which Endeavour Energy subsequently adopted.[35] In its advice to Endeavour Energy, Cumpston Sarjeant advised that this change in approach would have a significant effect on the valuation of Endeavour Energy's entitlements.[36] In its advice to Essential Energy, which made a similar request to Endeavour Energy, Cumpston Sarjeant advised that this approach would produce unrealistically high values for the liability when discount rates are low.[37]

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[32] Cumpston Sarjeant *Assessment of Long Service Leave and other Employee Entitlements for Endeavour Energy as at February 2009,* p, 6.

[33] Cumpston Sarjeant , *Assessment of Long Service Leave and other Employee Entitlements for Endeavour Energy as at 31 December 2009,* July 2010, p, 6.;

[34] Cumpston Sarjeant *Assessment of Long Service Leave and other Employee Entitlements for Endeavour Energy as at February 2009,* p, 6.

[35] Cumpston Sarjeant, *Revised valuation factors for Endeavour Energy employee entitlement valuation due to changed salary growth assumptions,* 25 July 2012.

[36] Endeavour Energy, *Response to AER Endeavour 007 (FW: Employee entitlement assessment)*, 24 July 2014

[37] Cumpston Sarjeant, *Response to Queries on Essential Energy Employee Entitlements Valuation*, 19 July 2012

When adopting this approach in 2011–12, the discount rate used to value Endeavour Energy's employee entitlements was 3.04 per cent and its long term salary growth assumption was 3.5 per cent.[38] Therefore, in effect, the discount rate net of forecast long term salary growth fell from 2.25 per cent in 2010–11 to –0.46 per cent in 2011–12. This change in assumptions led to an increase in the present value of Endeavour Energy's employee benefit obligations and increase in its reported opex.

In 2012–13, Endeavour Energy used the same technique. The discount rate used to value Endeavour Energy's employee entitlements was 3.76 per cent and the long term salary growth assumption was 3.5 per cent per annum.[39] These changes in assumptions led to an increase in the present value of Endeavour Energy's employee benefit obligations and a decrease in its reported opex.

We do not have a view about the most appropriate accounting methodology a service provider should apply when valuing its employee entitlements to meet its financial reporting obligations. This is a matter for the service provider to consider in preparing its statutory accounts. However, for EBSS purposes, assumptions made by a service provider or its actuary should have a minimal effect on the rewards or penalties a service provider receives under the EBSS. While a particular set of assumptions or techniques may be appropriate for statutory financial reporting purposes, it is not appropriate to rely on changes in assumptions to reward or penalise a service provider for efficiency gains or losses. We see no reason why consumers should pay higher or lower EBSS carryover amounts because of the particular assumptions or methods a service provider has chosen to value its obligations at a point in time. The EBSS is designed to reward efficiency gains and penalise efficiency losses and fairly share those gains and losses with consumers. An efficiency gain or loss should only depend on outcomes which have been realised by a service provider. To reward or penalise a service provider just because of the particular assumptions it or its actuary has used would not be consistent with the aim of an EBSS. To do so, would mean consumers would be paying more or less because of changes in assumptions, not efficiency gains or losses.

Endeavour Energy has contended that because provisions are to be paid in the future it does not change its nature of being a cost incurred in providing the service.[40] We understand that long service leave obligations and other obligations must ultimately be settled by Endeavour Energy. This is not the issue we have with its proposed approach. As outlined above, we are concerned that at the time a change in provision is recorded as opex, it reflects an estimate of the present value of an obligation and not an amount that has actually been incurred. It is not an amount that allows us to appropriately measure an efficiency gain for the purposes of the EBSS. As outlined above, the amount recorded depends on the assumptions and methodology used to

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38 Endeavour Energy, *Response to AER Endeavour 007 (Employee entitlements Nominal PV amounts.xlsx*, 24 July 2014.

39 Endeavour Energy, *Response to AER Endeavour 007 (Employee entitlements Nominal PV amounts.xlsx*, 24 July 2014.

40 Endeavour Energy, *Revised proposal*, p. 77.

form the estimate. We do not agree that Endeavour Energy should be rewarded for changing an estimate of its costs during a regulatory control period.

We also do not consider that our approach involves excluding a category of expenditure, as Endeavour Energy has submitted.[41] We are not excluding a category of expenditure called provisions from our calculations. We are assessing what actual opex should be for the purposes of calculating the EBSS carryover amounts. The fundamental requirement for the EBSS under the NER is to derive efficiency' gains and losses from the comparison of forecast and actual opex over the period, not merely accounting gains or losses. In doing so, we must be satisfied that actual opex is the actual opex faced by the service provider in the regulatory control period. We consider that given the changes in provisions allocated to opex reflect changes in assumptions; it would mean that Endeavour Energy's calculation of efficiency gains and losses over the period does not accurately reflect actual efficiency gains and losses achieved. Consequently, we consider that an adjustment is necessary to correct for the changes in assumptions. The question then becomes what adjustment is appropriate.

Endeavour Energy has submitted that, because we removed the movement in provisions from actual opex, we should have also adjusted its forecast opex for EBSS purposes for the 2009–14 regulatory control period to remove any movement in provisions embedded in this forecast.[42]

We do not consider there is a strong reason to take this approach. While Endeavour Energy's proposed opex forecast for the 2009–14 period may have included an estimate of provisions to be recorded as opex during the 2009–14 regulatory control period, we did not approve its proposed forecast. We approved a total forecast for the 2009–14 regulatory control period was for a total amount only, without reference to provisions. Accordingly, there would be an element of artificiality to any exercise that involves removing provisions on the basis that they are embedded in the forecast. If we implemented such an approach, we would need to arrive at a view on the amount we implicitly forecast for provisions at the time, such as long service leave and annual leave for the 2009–14 period, and re-forecast this amount based on an estimate of what the forecast cash amount would have been for these costs. We do not consider this methodology would be robust given the hypothetical nature of this exercise.

Faced with these circumstances, we are satisfied that the best approach, which gives better effect to both the terms and the intent of the EBSS, is to only adjust Endeavour Energy's reported actual opex and not adjust its approved forecast. We have done this by replacing the movement in provisions with actual costs faced by Endeavour Energy in the form of cash expenses. We are satisfied this provides a fair sharing between Endeavour Energy and its network users of the actual efficiency gains made by Endeavour Energy over the 2009–14 regulatory control period.

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41 Endeavour Energy, *Revised proposal*, p. 78.

42 Endeavour Energy, *Revised proposal*, p. 76.

We acknowledge that we did not state that we would take this approach when we determined the EBSS would apply to Endeavour Energy for the 2009–14 regulatory control period. However nor did we state that changes in reported provisions would be rewarded or penalised under the EBSS. As outlined in the EBSS, we stated in calculating EBSS carryover amounts we must be satisfied that Endeavour Energy's actual opex accurately reflect the costs it faced during the regulatory control. Under the EBSS, we have the discretion to calculate the EBSS rewards and penalties using an amount that differs from that proposed by a service provider where we are not satisfied that the reported costs accurately reflect the costs faced by the service provider. As provisions reflect estimates of costs, and Endeavour Energy's reported opex reflects changes in these estimates over the 2009–14 regulatory control period, we applied this discretion in reaching our decision.

We also disagree with Endeavour Energy's view that this decision would have a significant bearing on incentives of network service providers in the future. We have made our adjustment so Endeavour Energy will not be rewarded or penalised through the EBSS for changing estimates of its costs during a regulatory control period. This is not something that the EBSS was intended to reward or penalise service providers for. We do not see how our decision to clarify this position would impact on productive investments that Endeavour Energy or any other regulated network service provider may make. In fact we note our decision to clarify our position on this matter could have benefits as it would mean a service provider can revise its provisions in future regulatory control periods without fear of facing EBSS penalties.

In reaching our position we have also considered the report submitted by Endeavour Energy from Ernst and Young. It considered that by adjusting for movements in provisions, our approach would effectively represent a move towards 'cash accounting' for provisions, since:

- this excludes the element of the economic cost that has been deferred to future periods
- cash payments in a given regulatory period do not represent the full cost incurred by the businesses in the provision of standard control services.[43]

Ernst and Young's report addressed the following matters:

- the supporting arguments for maintaining an accruals-based approach to forecasting opex from the perspective of Australian Accounting Standards
- the limitations of adopting a cash based approach to forecasting opex and possible regulatory implications
- the results of its outreach to other Ernst and Young offices (dealing with the US energy markets) to determine whether this issue has been considered by other regulators

[43] Ernst and Young, *Accounting for provisions; assessing the AER's approach*, 19 January 2015, p. 3.

- possible implications and practical considerations associated with moving to a 'cash based' approach.[44]

The report was predominantly concerned with the implications of using different accounting approaches in forecasting opex. It did not consider why it may or may not be preferable to reward or penalise a service provider through the EBSS for changes in provisions. As this is the issue we have considered for this final decision, we do not consider the Ernst and Young report provides any reasons why we should depart from our position in the draft decision.

The other difference between our final decision and Endeavour Energy's proposal reflects the forecast opex amount we would use in calculating the EBSS. In our determination for the 2009 to 2014 period we outlined the forecast opex amount we would use in calculating the EBSS.[45] In its revised proposal, the forecast opex amount Endeavour Energy used in its calculations did not align to the amounts we stated we would use.

We also note that Endeavour Energy used a different template to calculate its EBSS carryover amounts than we proposed. We have already provided the template we would use to calculate Endeavour Energy's EBSS carryover amounts in the Regulatory Information Notice.[46] Endeavour Energy provided no reasons why we should adopt its template rather than the template we have already provided to Endeavour Energy and used for our draft decision. On this basis, we have continued to use the templates we have used for our draft decision.

9.5.2 Application of the EBSS in the 2015–19 regulatory control period

We have changed our draft decision not to subject any expenditure to the EBSS in the 2015–19 regulatory control period. Our final decision is the EBSS will apply to Endeavour Energy in the 2015–19 regulatory control period.

As noted above, our decision about whether to apply the EBSS depends largely on whether we will use a service provider's revealed opex to forecast its opex in the future or whether we rely on other information (such as benchmarking). In the case where we apply the EBSS in the 2015–19 regulatory control period but do not rely on Endeavour Energy's revealed costs to set forecast opex in the next regulatory control period, there are some potentially perverse outcomes. For instance:

- If Endeavour Energy does not improve its efficiency over the period its revealed costs will not affect its opex forecast in the next period. This could result in Endeavour Energy incurring an EBSS penalty which would exceed its fair share of

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[44] Ernst and Young, *Accounting for provisions; assessing the AER's approach*, 19 January 2015, pp . 4-5.

[45] Integral Energy, *NSW distribution determination 2009–10 to 2013–14,* p. 250.

[46] Endeavour Energy, *Regulatory Information Notice issued under section Division 4 of Part 3 of the National Electricity (New South Wales) Law*, pp. 32-33.

its efficiency loss. This outcome is not consistent with what we are seeking to achieve with the application of the EBSS.[47]

- If Endeavour Energy improves its efficiency it could receive EBSS rewards but it may still not benchmark well when compared to other service providers. In this case, Endeavour Energy's consumers would pay more than the efficient costs to receive the network service.

We are uncertain whether and to what extent we will rely on Endeavour Energy's revealed costs in the regulatory control period beginning in 2019. This makes it difficult to assess in advance whether the EBSS is or is not needed to incentivise efficient opex in the 2015–19 regulatory control period.

In our draft decision we considered Endeavour Energy's actual opex in 2012–13 was higher than many other service providers in the NEM. We substituted it with a lower forecast opex amount which was based on a benchmark. The benchmark we set was based on the average efficiency scores of the five highest ranked providers in the NEM (according to the Cobb Douglas SFA model). Given that Endeavour Energy's opex is currently more than the benchmark we applied, we questioned whether the EBSS was needed to incentivise Endeavour Energy to become efficient. We deemed that applying a benchmark opex allowance was likely to be sufficient, and by applying the EBSS there is a risk of perverse outcomes.

For the final decision we have reconsidered the threshold where we would use a benchmark to forecast opex instead of a service provider's revealed opex. We have continued to rely on Endeavour Energy's revealed opex incurred in 2012–13 for forecasting its opex for the 2014–19 period. In light of our decision to use Endeavour Energy's actual opex in 2012–13 as our base for forecasting purposes, we have reassessed the risks associated with applying or not applying the EBSS in the 2015–19 regulatory control period.

On balance, we consider it is preferable to continue to apply the EBSS. While there is some possibility that Endeavour Energy will pursue efficiency improvements across the 2015–19 regulatory control period without an EBSS in place, there is also some risk it will not. Given where Endeavour Energy benchmarks now, we consider for it, the risks are greater by not applying the EBSS. Having the EBSS in place will increase the possibility that Endeavour Energy will become more efficient over time. It will reduce the risk that it will increase its opex towards the end of the 2014–19 period. We consider this helps to contribute to the NEO. On this basis, our final decision is to apply version 2 of the EBSS to Endeavour Energy in the 2015–19 regulatory control period.[48]

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47 NER, cl. 6.5.8.

48 NER, cl. 6.5.8(c). We have previously determined that the EBSS that applied to the Endeavour Energy in the 2009-14 regulatory control period will apply to Endeavour Energy in the 2014–15 transitional regulatory control period but modified to be in terms of version 2 of the EBSS as if the transitional regulatory control period was the first year of the subsequent regulatory control period 2015–19 (that is, the first year in a period running from 2014–19). The effect of our final decision is that the EBSS applies to expenditure incurred in both the 2014–15 transitional regulatory control period and the 2015–19 regulatory control period. See AER, *Endeavour Energy, Endeavour*

We propose to apply version 2 of the EBSS as follows:

Length of carryover period

The carryover period will be five years. We will apply any carryover amounts that have accrued in the 2014–19 period when determining regulated revenue for the regulatory control period beginning in 2019.

Incremental efficiency gains

We will calculate incremental efficiency gains as follows:

- For the transitional year, 2014–15, we will apply the formula set out in section 1.3.2 of the EBSS
- For regulatory years from 2015–16 to 2017–18 we will apply the formula set out in section 1.3.3 of the EBSS
- For the 2018–19 regulatory year we will apply the formula set out in section 1.3.4 of the EBSS.

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. We consider actual opex net of movements 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 allows for exclusions of categories of costs from the EBSS where we do not use a single year revealed cost forecasting approach. This is designed to ensure the EBSS gives effect to fair sharing of efficiency gains and losses. If we do not use a single year revealed cost forecasting approach, there is a risk a service provider could receive EBSS carryover rewards or penalties that far exceed the cost reduction or increase.

When we apply the EBSS to Endeavour Energy we will exclude debt raising costs and the DMIA because these costs are not typically forecast using a revealed cost approach. This is consistent with Endeavour Energy's initial proposal.[49]

In addition to excluding these costs when we calculate Endeavour Energy's carryover amounts we will also:

Energy, Essential Energy, ActewAGL - Transitional distribution decision 2014–15, 16 April 2014, pp. 47–48; AER, *Efficiency Benefit Sharing Scheme for Electricity Network Service Providers*, November 2013.

[49] Endeavour Energy, Regulatory Information Notice, Table 7.5

- 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 Regulatory Asset Base
- 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.