Better Regulation

Explanatory statement

Proposed Efficiency Benefit Sharing Scheme

August 2013

AUSTRALIAN ENERGY REGULATOR

Shortened forms

Shortened term	Full title
AER	Australian Energy Regulator
AEMC	Australian Energy Market Commission
capex	Capital expenditure
CEM	Carbon + Energy Markets
CESS	Capital Expenditure Sharing Scheme
COSBOA	Council of Small Business Australia
CRG	Consumer Reference Group
DNSP	Distribution Network Service Provider
DSDBI	Victorian Government Department of State Development and Business Innovation
EBSS	Efficiency Benefit Sharing Scheme
ENA	Energy Networks Australia
EUAA	Energy Users Association of Australia
Capex incentive guidelines	Capital Expenditure Incentive Guidelines
Forecasting guidelines	Expenditure Forecasting Assessment Guidelines
MEU	Major Energy Users Inc.
National Electricity Rules (NER)	The rules as defined in the National Electricity Law.
NPV	Net Present Value
NSP	Network Service Provider
opex	Operating expenditure
PIAC	Public Interest Advocacy Centre Ltd.
STPIS	Service Target Performance Incentive Scheme
TEC	Total Environment Centre
TNSP	Transmission Network Service Provider

Request for submissions

Interested parties are invited to make written submissions to the AER regarding this explanatory statement by close of business, Friday, 20 September 2013.

Submissions should be sent electronically to: incentives@aer.gov.au. The AER prefers that all submissions sent in an electronic format are in Microsoft Word or other text readable document form.

Alternatively, submissions can be sent to:

Sebastian Roberts
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GPO Box 520
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The AER prefers that all submissions be publicly available to facilitate an informed and transparent consultative process. Submissions will be treated as public documents unless otherwise requested. Parties wishing to submit confidential information are requested to:

- clearly identify the information that is the subject of the confidentiality claim
- provide a non-confidential version of the submission in a form suitable for publication.

All non-confidential submissions will be placed on the AER's website at www.aer.gov.au. For further information regarding the AER's use and disclosure of information provided to it, see the ACCC/AER Information Policy, October 2008 available on the AER website.

Enquires about this paper, or about lodging submissions, should be directed to the Network Operations and Development Branch of the AER on (03) 9290 1444.

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Executive Summary

This explanatory statement accompanies the Australian Energy Regulator's (AER) proposed Efficiency Benefit Sharing Scheme (EBSS). The purpose of the EBSS is to incentivise electricity network service providers (NSPs) to pursue efficient operating expenditure (opex), and share these efficiency gains with consumers.

The AER is Australia's independent national energy market regulator. Our role is to promote the national electricity and gas objectives. Enshrined in the Electricity and Gas Laws, these objectives focus us on promoting the long term interests of consumers.

A major part of our work is regulating the energy networks that transport energy to consumers (electricity poles and wires, and gas pipelines). In 2012, the Australian Energy Market Commission (AEMC) announced important changes to the electricity and gas rules, affecting our role in regulation. Our role is also changed by the energy market reforms that the Prime Minister announced on 7 December 2012.

We initiated the Better Regulation program to draw together these important reforms and our work in developing our regulatory processes and systems. The Better Regulation program involves us:

National electricity and gas objectives

The objective of the Electricity and Gas Laws is to promote efficient investment in, and efficient operation and use of, energy services for the long term interests of consumers of energy with respect to—

(a) price, quality, safety, reliability and security of supply of energy; and

(b) the reliability, safety and security of the national energy systems.

- extensively consulting on seven new guidelines that outline our approach to receiving and assessing network businesses' expenditure proposals and determining electricity network revenues and prices
- establishing a consumer reference group specially for our guideline development work, to help consumers engage across the broad spectrum of issues that we are considering
- forming an ongoing Consumer Challenge Panel (appointed 1 July 2013) to ensure our network regulatory determinations properly incorporate consumers' interests
- improving our internal technical expertise and systems, and our engagement and communication with all our stakeholders.

We already have an EBSS for opex in place for NSPs.[1] The EBSS aims to provide an incentive for NSPs to pursue efficiency improvements in opex and to share efficiency gains between NSPs and network users. This is achieved by rewarding NSPs that can outperform their opex allowance and penalising NSPs that overspend against their opex allowance.

Two of the new guidelines we will produce under the Better Regulation program are relevant to the incentives facing NSPs. Specifically:

- the Expenditure Forecasting Assessment Guidelines (Forecasting Guidelines)
- the Capital Expenditure Incentive Guidelines (Capex Incentive Guidelines).

[1] AER, *Efficiency Benefit Sharing Scheme - Distribution Network Service Providers*, June 2008; AER, *Efficiency Benefit Sharing Scheme - Transmission Network Service Providers*, September 2007.

As our approach to expenditure forecasting and incentivising efficient capex could have implications on a NSP's incentives to undertake opex, we considered it timely to also review the EBSS.

Proposed revisions to the EBSS

We propose that the current EBSS should largely remain unchanged.

In our Draft Forecasting Guidelines, we have stated that our preference is to continue with the revealed cost base-step-trend forecasting approach for opex.[2] Under this approach we use the actual opex incurred by a NSP ('the base year'), add additional opex not reflected in the base year ('step changes') and then trend it forward to reflect forecast changes in input costs, productivity and scale.

We have outlined that we will only depart from this approach where we consider a NSP is materially inefficient. Where a NSP is considered materially inefficient we will consider adjustments to the opex it incurred in the proposed base year.

As we are likely to continue to use a base year as the basis for forecasting opex, we consider that a mechanism is required to mitigate a NSP's incentive to increase opex in the expected base year. A NSP may still have this incentive even if it expects we may adjust the base year to remove identified inefficiencies. We consider the current EBSS is an effective mechanism for constraining this incentive.

We no longer propose the fixed sharing scheme we discussed in the issues paper. In the issues paper we considered that we may use fully exogenous benchmarks to forecast opex. Our view was that a fixed sharing scheme would be required where we used such a methodology. We now consider it less likely that fully exogenous benchmarks will be used to forecast opex in the near future. For this reason we no longer recommend a fixed sharing scheme.

The only changes we propose that would affect how the EBSS operates are changes to the allowed adjustments and exclusions.

We propose revised criteria for adjustments and exclusions based on our experience of implementing the EBSS. In revising the criteria we have aligned the operation of the EBSS with the matters that the AER must take into account when designing and implementing the EBSS under the NER.[3]

We expect the revised criteria will not have a significant effect on how the EBSS operates. However, the proposed changes are likely to affect the operation of the scheme in the following ways:

1. We propose to no longer allow specific exclusions for uncontrollable opex or adjustments to the carryover amounts for unexpected increases or decreases in actual opex due to network growth.

   Our current approach effectively treats uncontrollable cost increases and decreases over the regulatory period differently to controllable cost increases and decreases. We have reviewed our current approach and do not consider there to be any compelling reason why this should be the case. Our proposed approach would be simpler to implement than our current approach, and would be consistent with our proposed approach to exclusions under the proposed Capital Expenditure Sharing Scheme (CESS).

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2 AER, *Draft Expenditure Forecasting Assessment Guidelines*, 9 August 2013.
3 NER, cl. 6.5.8 and 6A.6.5.

2. We propose exclusions where, at the next regulatory control period, we use a methodology other than a revealed costs approach to forecast a specific category of opex. This is consistent with the reasons why we currently exclude debt raising costs from the EBSS.

   Where we do not use a base year approach to forecast a category of opex, and we include such costs in the EBSS, a NSP may face a strong incentive to reduce its opex in the base year to increase its EBSS carryover amounts. In some circumstances this could provide a high return to the NSP but could cost consumers. To mitigate such risks we propose to exclude such cost categories from the EBSS.

We are also proposing to merge the EBSS for DNSPs and EBSS for TNSPs into a single scheme. As there is little difference between the two schemes, this is a relatively minor change and will have minimal impact on the operation of the EBSS.

We note that all changes proposed in this explanatory statement would only affect how carryover amounts are calculated for future regulatory control periods. It would not affect the calculation of carryover amounts from the current regulatory control period. Calculation of carryover amounts in the current period is subject to the existing EBSS for DNSPs and TNSPs.

Consultation strategy

We are seeking direct input from interested parties into the development of the revised EBSS over the next few months. Positions put forward in this paper will form a basis for discussion with stakeholders.

Our approach to consultation is guided by the overarching approach that has been adopted for the Better Regulation work stream.[4] The process has already involved an issues paper, meetings with stakeholders and a public forum. Written submissions are invited in response to this explanatory statement and the draft guidelines by close of business, Friday, 20 September 2013. We are also prepared to discuss our positions directly with stakeholders either on the phone, via video conference or in person. Enquiries can be directed to incentives@aer.gov.au.

[4] AER, *Better regulation issues paper,* 10 December 2012.

1 Introduction

This explanatory statement is the second part of our consultation for the revision of the current EBSS for TNSPs and DNSPs. It follows from an issues paper on expenditure incentives guidelines released in March 2013.[5]

We are proposing some changes to the way the EBSS operates. This explanatory statement explains the reason for these changes.

1.1 Current arrangements

We apply incentive based regulation to incentivise NSPs to pursue efficiency improvements in the way they undertake expenditure to provide network services.

At the start of a regulatory control period we set a NSP's revenue allowance using the building block approach. This provides the NSP with revenue to cover its efficient capital costs (in the form of depreciation and a return on investment), operating costs and tax liabilities.

If a NSP can provide the required service at a lower cost than that funded under our approved revenue allowance, it can benefit by keeping some of the difference. In particular, it will still earn revenue equal to the allowance but since its costs are lower, it will make a profit. Conversely, if a NSP exceeds its allowance it will have to bear some of the costs of this.

When forecasting opex we typically use one year of actual opex to forecast future opex (typically the penultimate year of the current regulatory control period) and then make changes for factors such as forecast regulatory changes, input cost changes, or network growth. This is known as the base-step-trend forecasting approach.

Under this forecasting approach, there are two potential incentive problems:

1. A NSP 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 NSP's incentive to reduce opex declines as the regulatory control period progresses and then increases again in the final year of the regulatory control period. This means a NSP may have a stronger incentive to defer efficiency improvements until after the 'base year'.

We address these issues by applying an EBSS in combination with a base-step-trend forecasting approach. When we do this, NSPs face the same reward for an underspend and the same penalty for an overspend in each year of the regulatory control period.

The current EBSS works as follows:

- The NSP keeps the benefit (or wears the cost) of delivering actual opex lower (higher) than forecast opex during a regulatory control period.
- Prior to the start of the next regulatory control period, we calculate carryover amounts for estimated opex efficiency gains or losses. The NSP receives a carryover amount in each year so

[5] AER, *Issues paper: Expenditure incentives guidelines for electricity network service providers*, March 2013. Our Issues Paper is available on our website: http://www.aer.gov.au/node/18869.

that incremental efficiency gains or losses are retained by the NSP for exactly five years after the gain or loss is made.

- The carryover amounts are added to derive an additional 'building block' as part of the regulated revenue requirement.
- The actual opex incurred in the base year is used as the starting point for forecasting opex in the next regulatory period.

Under this approach, the benefits of any increase or decrease in opex is shared approximately 30:70 between NSPs and consumers. Example A illustrates how the benefits of a permanent efficiency improvement are shared between a NSP and its consumers.

Example A - Sharing of efficiency gains - EBSS with a base year forecasting approach

Assume that in the first regulatory period, a NSP's forecast opex is $100 million per annum (p.a.).

Assume that during this period the NSP delivers opex equal to the forecast for the first three years. Then, in the fourth year of the regulatory period, the NSP implements a more efficient business practice for maintaining its assets. As a result, the NSP will be able to deliver opex at $95 million p.a. for the foreseeable future.

This efficiency improvement affects regulated revenues in two ways:

1. Through forecast opex. If we use the penultimate year of the regulatory period to forecast opex in the second regulatory period, the new forecast will be $95 million p.a. If the efficiency improvement is permanent, all else being equal, forecast opex will also be expected to be $95 million p.a. in future regulatory periods.
2. Through EBSS carryover amounts. The NSP receives additional carryover amounts so that it receives exactly six years of benefits from an efficiency improvement. Because the NSP has made an efficiency improvement of $5 million p.a. in Year 4, to ensure the NSP receives exactly six years of benefits, it will receive annual EBSS carryover amounts of $5 million in the first four years (Years 6 to 9) of the second regulatory period.

As result of these effects, the NSP will benefit from the efficiency improvement in Years 4 to 9. This is because the annual amount the NSP receives through the forecast opex and EBSS building blocks ($100 million) is more than what it pays for opex ($95 million) in each of these years.

Consumers benefit from Year 10 onwards after the EBSS carryover period has expired. This is because what consumers pay through the forecast opex and EBSS building blocks ($95 million) is lower from Year 10 onwards.

Figure 1 provides a more detailed illustration of how the benefits are shared between NSPs and consumers over time.

Example A (continued)

Figure 1 Example of how the EBSS operates

	Regulatory period 1					Regulatory period 2					
Year	1	2	3	4	5	6	7	8	9	10	Future
Forecast (F_t)	100	100	100	100	100	95	95	95	95	95	95
Actual (A_t)	100	100	100	95	95	95	95	95	95	95	95
Underspend (F_t - A_t = U_t)	0	0	0	5	5	0	0	0	0	0	0
Marginal efficiency gain (I_{t+1} = U_{t+1}-U_t)	0	0	0	5	0	0[6]	0	0	0	0	
Carryover (I_1)		0	0	0	0	**0**					
Carryover (I_2)			0	0	0	**0**	**0**				
Carryover (I_3)				0	0	**0**	**0**	**0**			
Carryover (I_4)					5	**5**	**5**	**5**	**5**		
Carryover (I_5)						**0**	**0**	**0**	**0**	**0**	
Carryover amount (C_t)						**5**	**5**	**5**	**5**	**0**	
Benefits to NSP (F_t – A_t +C_t)	0	0	0	5	5	5	5	5	5	0	0 p.a
Benefits to consumers (F_1 – (F_t +C_t))	0	0	0	0	0	0	0	0	0	5	5 p.a
Discounted benefits to NSP[7]	0	0	0	5	4.7	4.5	4.2	4.0	3.7	0	0
Discounted benefits to consumers	0	0	0	0	0	0	0	0	0	3.5	58.7[8]

Example A (continued)

Table 1 sums the discounted benefits to NSPs and consumers from the bottom two rows of Figure 1. As illustrated below, the benefits of the efficiency improvement are shared approximately 30:70 in perpetuity between the NSP and consumers.

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6 At the time of forecasting opex for the second regulatory period we only have information about actual opex up to Year 4. That means an underspend in Year 6 will reflect any efficiency gains made in Year 5 and Year 6. To ensure the carryover rewards for Year 6 only reflect marginal efficiency gains in Year 6 we subtract the marginal efficiency gain in Year 5 from the total underspend in opex in Year 6. In the example above, $I_6 = U_6-(U_5-U_4)$.

7 Assuming a discount rate of 6 per cent.

8 As a result of the efficiency improvement, forecast opex is $5 million p.a. lower in nominal terms. The estimate of $58.7m is the net present value of $5 million p.a, delivered to consumers annually from Year 11 onwards. It is calculated as follows: (F_1 - A_{10})/[Discount rate*[(1+discount rate)^6]].

Example A (continued)

Table 1 Sharing of efficiency gains - Year 4 forecasting approach, with EBSS

	NPV of benefits of efficiency improvement[9]	Percentage of total benefits
Benefits to NSP	$26.1 million	30 per cent
Benefits to consumers	$62.3 million	70 per cent
Total	$88.3 million	100 per cent

1.2 Rationale for review of the EBSS

We are currently reviewing our approach to opex forecasting through the development of the Forecasting Guidelines. As outlined above, the form of the current EBSS is closely linked with our approach to opex forecasting. For this reason we considered a review of the EBSS was required.

We are also developing the Capex Incentive Guidelines. Our approach to incentivising efficient capex could affect the relative balance in incentives between opex and capex. This was another reason why we considered a review of the EBSS was necessary.

1.3 Consultation process

Our consultation to date has included releasing an issues paper, holding a public forum and numerous bilateral meetings.

Issues paper

We released an issues paper on Expenditure Incentives Guidelines on 20 March 2013 and received 21 written submissions in response (submissions closed on 10 May 2013). Submissions were from electricity NSPs, gas network businesses, consumer representative groups and consultant groups. A summary of submissions as they relate to the EBSS is at attachment A.

Public forum and meetings

We held a joint stakeholder forum on 29 April 2013 to discuss expenditure incentives and interactions between expenditure incentives and expenditure assessments.

We have attended a number of sessions with the Consumer Reference Group (CRG) to explain our initial proposals and discuss the key issues for the CRG in relation to expenditure incentives.

We also held a number of bilateral meetings with stakeholders including:

- 11 April and 15 May: meeting with SP AusNet
- 17 April: meeting with CitiPower, Powercor and SA Power Networks

[9] The numbers in this column do not add because of rounding.

- 22 April: meeting with TransGrid, Essential Energy, Endeavour Energy and AusGrid
- 23 April: meeting with Ergon Energy, Energex and Powerlink
- 10 May: meeting with Jemena
- 14 May: meeting with ElectraNet
- 5 June: meeting with Carbon + Energy Markets (CEM) on behalf of Energy Users Association of Australia (EUAA).

Key dates

Key dates for the EBSS review are outlined below in Table 2.

Table 2 - Timeline for EBSS review

Date	Milestone	Description
20 March	Issues paper released	Explained issues and preliminary thoughts on approach to the expenditure incentives guidelines. Invited written submissions.
April to May	Stakeholder meetings	Meetings with NSPs and the Consumer Reference Group.
29 April	Stakeholder forum	Public forum on the issues paper and interactions with expenditure forecast assessment guidelines.
10 May	Submission on issues paper due	Formal response to issues paper.
9 August	Draft guidelines published	Sets out AER's draft positions on the EBSS. Invites written submissions.
August to October	Stakeholder consultation	Further discussions with stakeholders.
20 September	Submissions on draft guidelines due	Formal response by stakeholders.
29 November	Publish final EBSS	Publication of final EBSS.

2 Efficiency Benefit Sharing Scheme

The EBSS aims to provide an incentive for NSPs to pursue efficiency improvements in opex and to share efficiency gains between NSPs and network users. This is achieved by rewarding NSPs that can outperform their allowance and penalising NSPs that overspend against their allowance.

Requirements for the EBSS are contained in clauses 6.5.8 and 6A.6.5 of the NER. In developing any EBSS the AER must have regard to:

- the need to provide NSPs with a continuous incentive to reduce opex
- the desirability of both rewarding NSPs for efficiency gains and penalising NSPs for efficiency losses
- any incentives that NSPs may have to capitalise expenditure; and
- the possible effects of the scheme on incentives for the implementation of non-network alternatives.

In addition, for DNSPs, the AER must ensure that benefits to electricity consumers likely to result from the scheme are sufficient to warrant any reward or penalty under the scheme for DNSPs.

2.1 Issues paper

Our issues paper, released in March 2013, covered both capex and opex incentives and outlined our initial positions on a number of key issues.

On opex we proposed two different schemes. The scheme that would apply would depend on the forecasting approach.

1. Where we used the base-step-trend forecasting approach, we proposed to continue to apply the current EBSS.
2. Where we used exogenous forecasting approaches we proposed a sharing scheme which would fix the share of underspends and overspends between NSPs and consumers. We proposed a sharing ratio of 30:70. This would mean that 30 per cent of any underspend or overspend would go to NSPs with the rest to go to consumers.

Given the short time the EBSS has been in place, the issues paper noted that there is limited available data to measure how effective the current EBSS has been. However, where similar opex incentive schemes have been in place for a whole regulatory control period, there is no systematic empirical evidence that opex of NSPs is excessively high in the penultimate year of the regulatory control period (i.e. the typical base year) compared to earlier years in the regulatory control period.[10] This suggests that this form of opex incentive scheme has been effective in constraining any incentive to increase opex in the base year. For this reason we proposed to retain the form of the current EBSS where we continue to use a base-step-trend forecasting approach.

[10] AER, *Issues paper: Expenditure incentives guidelines for electricity network service providers*, March 2013, p. 27.

We also released an issues paper on expenditure forecasting in December 2012 which proposed an increased role for external factors such as industry benchmarks in forecasting opex.[11] Where we used this information to forecast opex, this would have some implications for the incentives to undertake efficient opex. In particular, the link between current and future opex would effectively be broken.

Our initial position was that a different EBSS should apply where we use exogenous approaches to forecast opex. We considered there are a number of reasons why this form of EBSS would be appropriate; including:

- to share efficiency gains between NSPs and consumers
- to balance the power of the incentive to improve service standards and the incentive to undertake efficient capex
- to share the impact of any forecasting error between NSPs and customers.

A fixed sharing ratio of 30:70 would have provided NSPs with a similar incentive to pursue efficiency improvements in opex as the current EBSS.

2.2 Summary of proposed approach

After further consideration of the issues and submissions to the issues paper, we propose that the EBSS should continue largely in its current form.

The current EBSS is intrinsically linked to a base-step-trend forecasting approach. In our Draft Forecasting Guidelines we have outlined our preference is to continue with this forecasting approach. When using this forecasting approach, we consider the current EBSS is an effective mechanism for constraining a NSP's incentive to increase its opex in the expected base year.

Where a NSP is materially inefficient, we will consider adjustments to opex in the base year to remove the inefficiencies we identify. Even where we make adjustments, in the absence of an EBSS, a NSP may still possess an incentive to increase its opex in the base year. For this reason we consider the EBSS is also required where we apply adjustments to the base year.

The matters we have considered in reaching our preferred position on the form of EBSS are addressed below in section 2.3 under the following headings:

- submissions on the form of EBSS
- proposed forecasting approach to opex
    - proposed form of EBSS under 'unadjusted base year' forecasting approach
    - proposed form of EBSS under 'base year minus adjustments' forecasting approach.

Our proposed changes to the EBSS relate to adjustments and exclusions. Our proposed changes are based on our experience in implementing the EBSS to date. With these changes we aim to better align the criteria for adjustments and exclusions with the matters we must consider under the NER.

We propose we will only make adjustments or exclusions to:

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[11] AER, *Issues paper: Expenditure forecast assessment guidelines for electricity distribution and transmission,* December 2012.

- Adjust forecast opex to add any approved revenue increments or subtract any approved revenue decrements made after the initial regulatory determination. This may include approved pass through amounts or opex for contingent projects.
- Adjust actual opex to add capitalised opex that has been excluded from the Regulatory Asset Base.
- Exclude any categories of costs from forecast and actual opex where the exclusion of these costs would better achieve the requirements of clauses 6.5.8 and 6A.6.5 of the NER. This will include exclusions for cost categories such as debt raising costs where we do not use a revealed cost approach to forecasting.
- Adjust forecast opex and actual opex for inflation so that the real value of the carryover amounts are consistent with the real value of the other components of the NSP's regulated revenue.

At the time of the regulatory determination all forecast adjustments or exclusions will be listed in the determination. We will also retain the discretion to make further additional adjustments or exclusions when calculating the carryover amounts.

In practice these changes are expected to affect the operation of the current scheme by:

- no longer allowing specific exclusions for uncontrollable opex, or adjustments for changes in opex due to unexpected increases or decreases in network growth
- allowing ex post adjustments to the carryover amounts in some circumstances.

Our approach to exclusions and adjustments is discussed in further detail in section 2.4.

2.3 Proposed approach - form of EBSS

2.3.1 Submissions on the form of EBSS

Many submissions broadly supported the form of the current EBSS.[12] The submissions from Energy Networks Association (ENA), Grid Australia and Jemena considered the EBSS has been effective in driving opex efficiencies.[13] The Victorian Department of State Development, Business and Innovation (DSDBI) stated that actual opex in Year 4 was not disproportionately high when Victorian DNSPs were subject to a scheme similar to the current EBSS.[14]

Some submissions (CitiPower/Powercor/SA Power Networks, APA Group) also considered that the AER should consider increasing the incentive power of the EBSS for NSPs assessed to be at the efficient frontier.[15] These submissions considered that the incentive power implicit in the current approach (30 per cent) may not be sufficient to drive continuing efficiency gains for these firms.

We also received some submissions that questioned the effectiveness of the EBSS.

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12 Actew AGL, *Response to expenditure incentives guidelines issues paper,* p. 1; CitiPower et al, *Submission on Issues Paper*, p. 3; ENA, *Submission on Issues Paper*, p. 25; Energex, *Submission on Issues Paper*, p. 7; Ergon Energy, *Submission on Issues Paper*, p. 8; Grid Australia, *Submission on AER Expenditure Incentives Issues Paper*, p. 4; SP AusNet, *Submission on Issues Paper*, p. 6.

13 ENA, *Submission on Issues Paper*, p. 25; Grid Australia, *Submission on AER Expenditure Incentives Issues Paper*, p. 4; Jemena, *Submission on AER Expenditure Incentives Issues Paper*, May 2013, p. 2.

14 DSDBI, *Submission on Issues Paper*, p. 4.

15 APA Group, *Submission on Issues Paper*, pp. 3-4. CitiPower et al, *Submission on Issues Paper*, p. 3.

- Major Energy Users (MEU) disagreed with our assessment of the effectiveness of the EBSS and considered that the NSP still faces an incentive to inflate its opex in the expected base year.[16]

- Council of Small Business Australia (COSBOA) questioned whether applying an EBSS in combination with a base-step-trend approach without a review of such opex, was sufficient to conclude that a NSP's actual opex is efficient.[17]

- The Public Interest Advocacy Centre (PIAC) acknowledged there was limited evidence that the EBSS was distorting the expenditure profile within a regulatory period, but considered at least some NSPs were 'enhancing' opex in the fourth year of the regulatory period.[18] PIAC considered the AER should closely monitor this in the next period. It also requested the AER conduct a more extensive analysis to determine if the EBSS has been effective in driving improved efficiency in opex.[19]

There were a range of views about the sharing scheme that should be in place where we use an alternative forecasting methodology.

- PIAC recognised that a fixed sharing scheme with a constant, symmetrical incentive of 30 per cent appears to provide a 'practical solution'.[20]

- Grid Australia also recognised that where an external benchmarking approach is practical in the future, the AER's suggestion to modify the EBSS to reduce the power of the incentives to reduce opex has merit. In the absence of such a reduction it noted that the power of incentives for opex would be too high and unbalanced with capex.[21]

- The ENA, Jemena and CitiPower/Powercor/SA Power Networks suggested that if we set a forecast lower than under a base year approach, we could adjust how the carryover amounts are calculated under the current EBSS, rather than introduce a new scheme.[22] The proposed adjustment would be implemented by substituting the actual amount spent in the 'base year' with the new benchmark. This would derive a carryover benefit and would reduce the potential for a 'double penalty'.[23]

- The NSW DNSPs considered that we should not apply EBSS penalties where we use an exogenous forecast in preference to revealed costs.[24]

2.3.2 Proposed forecasting approach to opex

We have considered our approach to forecasting opex in reaching our position on the form of EBSS. In the Draft Forecasting Guidelines we have outlined our preference is to continue to use a base-step-trend methodology to forecast opex.

Under this approach, a year of actual opex is taken as the basis or 'base year' for a forecast. The base year is adjusted to better reflect the requirements of future opex and trended forward by

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16 MEU, *Submission on Issues Paper*, p. 21.
17 COSBOA, *Submission on Issues Paper*, p. 13.
18 PIAC, *Submission on Issues Paper*, p. 25.
19 PIAC, *Submission on Issues Paper*, p. 26.
20 PIAC *Submission on Issues Paper*, p. 12.
21 Grid Australia, *Submission on AER Expenditure Incentives Issues Paper*, p. 22.
22 CitiPower et al, *Submission on Issues Paper*, p. 14; ENA, *Submission on Issues Paper*, p. 16; Jemena, *Submission on AER Expenditure Incentives Issues Paper*, May 2013, p. 4.
23 CitiPower et al, *Submission on Issues Paper*, p. 14.
24 NSW DNSPs, *Submission on AER Expenditure Incentives Issues Paper*, May 2013, p. 10.

accounting for forecast changes to input costs, scale and productivity improvements in the forecast period. Finally, any other efficient costs not reflected in base opex are added (referred to as step changes).

Typically we have used a NSP's actual opex in the penultimate year of the current regulatory control period as the base year. This is because this is the most recent year of available data at the time of a regulatory determination and hence likely to be the most reflective of the forecast period. Sometimes the third last year has been used since this has been the most recent year of available data at the time the NSP submitted its regulatory proposal.

In the Draft Forecasting Guidelines we have also outlined that in some instances we will depart from this approach. Specifically, we would have concerns about continuing with this approach where:

- a NSP appears materially inefficient in comparison to its peers, and
- in tandem with the application of incentive schemes, the revealed cost forecast would yield an outcome that is not consistent with the opex criteria.

Where we have concerns as identified above, we would consider making adjustments to the opex incurred in the proposed base year. The adjusted base year would be combined with our step and trend approach to set a forecast opex allowance for the next regulatory control period.

Proposed form of EBSS - 'unadjusted base year' forecasting approach

Where we use an unadjusted base year approach there is a strong incentive for a NSP to increase its opex in the expected base year. Where it does so, consumers would bear the costs of such an increase through an inflated forecast in each year of the following regulatory control period.

The current EBSS provides an effective counterweight to this incentive. If a NSP increases its opex in any year relative to the previous year, it will face penalties through the EBSS.

For instance, if a NSP increases its opex in the penultimate year of the current regulatory control period and we use the inflated forecast as its new forecast, it:

a. receives the benefits of a higher forecast in the new regulatory control period, and

b. through the EBSS it will receive four years of negative carryover amounts in the new regulatory control period. These amounts are subtracted from the revenue the NSP would otherwise recover through regulated charges.

Overall, the NSP will be worse off by inflating its opex in Year 4. This is illustrated in detail in Example B.

Example B - Impact of increasing opex in the base year - effect of EBSS

Assume that in the first regulatory period, a NSP's forecast opex is $100 million p.a.

Assume that during this period, the NSP delivers opex equal to the forecast for the first three years. Then, in the fourth year of the regulatory period, the NSP incurs additional expenditure of $1 million. After this time the NSP's forecast opex is expected to fall back to $100 million p.a.

If we used a base year of Year 4 to forecast opex, the NSP would benefit in the next period from increasing its opex in Year 4 because its forecast opex would exceed its actual opex in each year of the next period. If we did not apply the EBSS, the only cost it would face would be the marginal increase in opex in Year 4 of the current period. Consumers would be worse off in the next period because they would pay more than the cost of efficient opex in the next regulatory period.

For instance, assuming a discount rate of 6 per cent, the NPV of benefits to the NSP would be $3.0 million. This is the NPV of the sum of the additional benefits from a higher forecast less the additional cost from the higher opex in Year 4. As the NSP receives a benefit from increasing its opex, if we use the NSP's actual opex in Year 4 as the base year, it would have an incentive to increase its opex in this year.

The NPV of the cost to consumers would be $4.0 million. This is the NPV of the cost of the higher forecast to consumers in each year of the next regulatory period.

Table 3 Sharing of increase in opex in base year - no EBSS

Recurrent opex	Actual opex in year 4	NPV of benefits to NSP of increase in opex in year 4	NPV of benefits to consumers of increase in opex in year 4
$100 million p.a.	$101 million p.a.	$3 million	-$4 million

Where we apply the EBSS in combination with a base year of Year 4 to forecast opex, the NSP would still benefit through a higher forecast in the next period.

However, through the EBSS the NSP would also face a carryover penalty of $1 million p.a. in the first four years of the second regulatory period.

Under this approach, the negative carryover amounts cancel out the impact of the higher forecast in the first four years of the second regulatory period. A higher forecast would only have an impact on regulated charges in the fifth year of the second regulatory period.

The impact of applying the EBSS is illustrated below in Figure 2.

Example B (continued)

Figure 2 EBSS - base year forecasting approach with overspend in base year

	Regulatory period 1					Regulatory period 2					
Year	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Future**
Forecast (F_t)	100	100	100	100	100	101	101	101	101	101	100
Actual (A_t)	100	100	100	101	100[25]	100	100	100	100	100	100
Underspend ($F_t - A_t = U_t$)	0	0	0	—1	0	1	1	1	1	1	0
Marginal efficiency gain ($I_{t+1} = U_{t+1} - U_t$)	0	0	0	—1	0	0[26]	0	0	0	0	
Carryover (I_1)		0	0	0	0	**0**					
Carryover (I_2)			0	0	0	**0**	**0**				
Carryover (I_3)				0	0	**0**	**0**	**0**			
Carryover (I_4)					—1	**—1**	**—1**	**—1**	**—1**		
Carryover (I_5)						**0**	**0**	**0**	**0**	**0**	
Carryover amount (C_t)						**—1**	**—1**	**—1**	**—1**	**0**	
Benefits to NSP ($F_t + C_t - A_t$)	0	0	0	—1	0	0	0	0	0	1	0 p.a
Benefits to consumer ($F_1 - (F_t + C_t)$)	0	0	0	0	0	0	0	0	0	—1	0 p.a
Discounted benefits to NSP[27]	0	0	0	—1	0	0	0	0	0	0.7	0
Discounted benefits to consumers	0	0	0	0	0	0	0	0	0	—0.7	0

[25] This reflects actual opex. However, at the time of calculating the carryover amounts for regulatory period 1 we do not know actual opex in Year 5. When calculating the carryover amounts we assume there is no further efficiency gain after the base year. This means in the example above, for the purposes of calculating the carryover amounts we would assume actual opex was $101m in Year 5. This leads to the assumed marginal underspend of 0 and a carryover amount of 0 in each of the first five years of the next regulatory period.

[26] At the time of forecasting opex for the second regulatory period we only knew actual opex up to Year 4. Therefore, the underspend in Year 6 will reflect actual efficiency gains made in Year 5 and Year 6. To ensure the carryover rewards for Year 6 only reflects marginal efficiency gains in Year 6 we subtract the actual marginal efficiency gain in Year 5 from the underspend in opex in Year 6. In the example above, $I_6 = U_6 - (U_5 - U_4)$.

[27] Assuming a discount rate of 6 per cent.

Example B (continued)

Under this approach, for an increase in opex in the base year of $1 million, the NPV of the cost to the NSP is $0.3 million. This is the sum of the discounted benefits to the NSP outlined in the second last row in Figure 2.

The NPV of the cost to consumers is $0.7 million. This is the sum of the discounted benefits to consumers in the last row in Figure 2. The increase in cost is shared approximately 30:70 between NSPs and consumers.

Table 4 Sharing of increase in opex in base year - with an EBSS

Recurrent opex	Actual opex in year 4	NPV benefits to NSP of increase in opex	NPV of benefits to consumers of increase in opex
$100 million p.a.	$101 million p.a.	-$0.3 million	-$0.7 million

The empirical evidence to assess the effectiveness of the EBSS is limited at this stage. Some NSPs appear to have spent more on average in the fourth year. However, other NSPs have spent less. Therefore, there is not any pattern that suggests that opex in the fourth year of the regulatory period is systematically high when compared to other years in the regulatory period. On this basis we reaffirm our view in the issues paper that the EBSS has been necessary to constrain excessive increases in opex in the base year.

We note that MEU disagreed with our conclusion that the NSP does not have an incentive to inflate its opex in the base year. It considered that a NSP has an incentive to underspend its opex in other years, where it would receive a carryover reward through the EBSS. It considered the NSP could then shift opex from these years into the base year. The NSP would receive the benefits of inflated opex through its forecast, which would not be addressed through the EBSS.[28]

We do not consider a NSP would benefit from shifting opex out of one year and into another year. The EBSS rewards and penalises the NSP for incremental efficiency gains and losses. This means that in NPV terms there is no reward to the NSP from shifting opex out of one year and into another.

For instance, if a NSP shifts opex out of Year 3 and into Year 4:

- it would receive a carryover reward in the first three years of the next regulatory period because of the incremental underspend in Year 3
- it would also receive a higher forecast in the next regulatory period if we used a base year of Year 4 to forecast opex.

However, by shifting opex into Year 4, the NSP would also face a significant penalty because of the incremental overspend in Year 4. Because the EBSS rewards or penalises NSPs through incremental efficiency gains and losses, the negative carryover amount in Year 4 is the overspend in Year 4 plus the underspend in Year 3. This means the negative carryover amount for the incremental overspend in Year 4 would be twice as large as the positive carryover amount for the incremental underspend in

[28] MEU, *Submission on Issues Paper*, p. 21.

Year 3. As the incremental overspend is retained by the NSP for six years, the negative carryover amount for Year 4 would also apply for one more year than the positive carryover amount for Year 3. We do not consider a NSP faces an incentive to shift opex from Year 3 to Year 4 given this likely outcome.

The impact is illustrated below in Table 5 for an example where $1 million of opex is shifted out of Year 3 and into Year 4 in period n-1.

Table 5 Effect on regulated revenue in period n of shifting $1m of opex from Year 3 to Year 4 in period n-1

Regulatory year	1	2	3	4	5
Effect on forecast opex	$1m	$1m	$1m	$1m	$1m
Carryover from $1m underspend in Year 3 of period n-1	$1m	$1m	$1m		
Carryover from $1m overspend in Year 4 of period n-1	—$2m	—$2m	—$2m	—$2m	

We consider that other concerns from some stakeholders about applying the EBSS when opex is inefficient are, at least in part, likely to be addressed through our opex forecasting approach.

As outlined in our Draft Forecasting Guidelines we will review base year expenditures to determine whether a NSP is materially inefficient. In deciding whether a NSP appears materially inefficient, we propose to consider:

- the results of our expenditure review techniques, including economic benchmarking, category analysis and detailed engineering review
- the NSP's proposal and stakeholders' submissions.

If material inefficiencies are unexplained after we review the NSP's proposal and consider submissions, we will determine whether the outcome of applying the proposed base year in conjunction with incentive schemes would result in efficient outcomes. This consideration would depend on the size of the identified inefficiency and the value of scheme penalties or rewards. If, after this assessment, material inefficiencies are still not explained, we will consider an adjustment to base year opex. If we make an adjustment, it would likely be only to the extent required to address the material inefficiency.

We have also considered the suggestion from stakeholders that the incentive power from the current EBSS might be insufficient to drive efficiency improvements for relatively efficient NSPs. However there is limited evidence to assess whether the current incentive power for opex is too low to drive continuing efficiency improvements. In light of limited evidence it is difficult to assess the claim that the current power is or is not sufficient. For this reason we prefer to maintain the status quo and do not propose to change the EBSS to further strengthen the incentive power where we use an unadjusted base year forecasting approach. We note that the data we gather for the purposes of benchmarking will assist us in assessing these claims in the future.

Another reason we consider it is appropriate to maintain the status quo is that the current EBSS, combined with a base year approach, will lead to balanced incentives between a NSP's incentives to undertake efficient capex, and with DNSPs' incentives to make service improvements. For instance:

- The same six year retention period that applies under the EBSS also applies if a DNSP receives a reward or penalty for service improvements under the STPIS. Therefore the benefits of service improvements are shared in the same way between DNSPs and consumers (30:70) under the STPIS as efficiency gains in opex are shared under the EBSS.[29]

- Under the proposed CESS, the NSP faces a 30 per cent reward if it spends less than forecast capex during a regulatory control period and a 30 per cent penalty if it spends more than forecast capex. Therefore its incentive to reduce capex is also 30 per cent.

Balanced incentives will reduce a NSP's incentive to substitute opex for less efficient capex or vice-versa, and will help to ensure the NSP does not favour reductions in expenditure at the expense of service standards. Balanced incentives were supported by several stakeholders.[30]

Proposed form of EBSS - 'base year minus adjustments' forecasting approach

We also propose to maintain the current form of the EBSS when we apply a 'base year minus adjustments' forecasting approach. We propose to only make adjustments to base year opex where a NSP's base year opex is considered materially inefficient.

Where a NSP expects that we will apply the current EBSS in combination with a 'base year minus adjustments' forecasting approach, on average, we are likely to increase a NSP's incentive to improve its efficiency. For instance, if a NSP expects it will not be able deliver opex at or below our new forecast, an efficiency improvement that lowers its opex in one period will reduce the costs it faces in the next period as a result of the lower forecast. In addition, such an efficiency improvement will also increase the carryover amounts the NSP receives in the next period through the EBSS.

We consider a higher powered incentive to be appropriate for relatively inefficient NSPs, particularly where such NSPs are relatively unresponsive to financial incentives. A higher powered incentive increases the likelihood that a NSP will reduce its opex over time and become efficient in the future. If a NSP does not respond to the higher powered incentives, it will bear a greater portion of any inefficient overspend. This will help to ensure that consumers do not pay for more than the efficient amount of opex.

The EBSS will also help to reduce a NSP's incentive to shift opex into the base year. Even if we used a 'base year minus adjustments' approach, without an EBSS, a NSP may still have an incentive to shift opex into the expected base year. In practice it can be difficult to conclude that some increases in opex are inefficient. Where a NSP does have an incentive to shift opex into the base year, consumers would pay more than necessary in the next regulatory period. As the NSP would face negative carryover amounts under the EBSS in the next period when it does shift opex into one year, the EBSS helps to reduce this risk.

Where we do use a forecast that is lower than the actual opex the NSP incurred in the base year, we do not propose to adopt the suggestions by CitiPower/Powercor/SA Power Networks, the ENA and Jemena to amend the way we would calculate the carryover amounts in the period prior.

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[29] AER, *Electricity Distribution Network Service Providers - Service Target Performance Incentive Scheme,* June 2008, p. 22.

[30] CitiPower et al, *Submission on Issues Paper*, pp. 17-18; ENA, *Submission on Issues Paper*, p. 27; Energex, *Submission on Issues Paper*, p. 7; EnerNOC, *Submission on the expenditure incentives issues paper,* p. 1; Ergon Energy, *Submission on Issues Paper*, p. 8; Grid Australia, *Submission on AER Expenditure Incentives Issues Paper*, pp. 10-11; SP AusNet, *Submission on Issues Paper*, p. 1.

These submissions suggested where we set a forecast lower than opex in the base year, we could substitute the actual amount spent in the base year with the revised forecast. This approach would provide a NSP with a positive carryover amount in the next period. The carryover amount for the base year would be the difference between forecast opex in the base year and the revised forecast.

Under this approach, the carryover amount for the base year would not be related to any efficiency improvement made by the NSP in this year. Under the EBSS, an efficiency gain is where the NSP delivers opex lower than forecast opex.[31] We do not consider we should reward NSPs through the EBSS for factors unrelated to the difference between forecast opex and actual opex in the relevant year.

As our approach will be to use a NSP's revealed costs either in full or in part, we also consider it is unlikely that in the immediate future our forecasting approach could be classified as a fully exogenous approach. As the fixed sharing scheme we proposed was designed to work in conjunction with a fully exogenous forecasting approach, we no longer consider it necessary to amend the EBSS at this time to allow for a fixed sharing scheme. We note that if we did implement a fixed sharing scheme in combination with a revealed costs approach to forecast opex, this could lower the power of a NSP's incentive to reduce its opex. This was also noted by the ENA in its submission to the issues paper.[32]

Example C illustrates how efficient costs would be reflected in regulated charges when the EBSS is applied in conjunction with a 'base year minus adjustments' forecasting approach.

Example C - Effect of EBSS with base year adjustments

Under a 'base year minus adjustments' forecasting approach there are two different mechanisms by which we can ensure the regulated charges faced by consumers reflect efficient opex:

1. By ensuring efficiency improvements made by the NSP are reflected in forecast opex.
2. Where the NSP does not make sufficient efficiency improvements, through additional adjustments to base year opex.

This is illustrated in the example below.

As with Example A, assume that in the first regulatory period, a NSP's forecast opex is $100 million p.a. During this period, the NSP delivers opex equal to the forecast for the first three years. Then, in the fourth year of the regulatory period, the NSP lowers its opex by $5 million as a result of an efficiency improvement. It now expects it can deliver opex at $95 million p.a. for the foreseeable future.

Without an EBSS, if a NSP makes an efficiency gain it would only benefit in the fourth and fifth years of the period. Through the EBSS, the NSP would receive a carryover reward of $5 million p.a. in the first four years of the second regulatory period. As illustrated in Example A, at a discount rate of 6 per cent, a reward of $5 million p.a. for six years is equivalent to $26.1 million in NPV terms.

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31 NER, Cl. 6.5.8(a) and 6A.6.5(a)
32 ENA, *Submission on Issues Paper*, p. 16.

Example C (continued)

Consumers receive an annual benefit from the efficiency improvement from Year 10 onwards. As also illustrated in Example A, this is equivalent to $62.3 million in NPV terms. There are benefits to consumers because the total amount consumers pay for opex (forecast opex + EBSS carryover amounts) declines from Year 10.

Table 6 Sharing of efficiency gains - base year forecasting approach with EBSS

Annual opex up until year 4	Forecast opex from year 4 onwards	NPV of benefits to NSP of efficiency improvement	NPV of benefits to consumers of efficiency improvement
$100 million p.a.	$95 million p.a.	$26.1 million	$62.3 million

Also assume that prior to the second regulatory period we review the NSP's actual opex and we conclude that, overall, it is materially inefficient. We instead consider $80 million p.a. reflects efficient opex for the NSP. Because the NSP is deemed to be materially inefficient we make an additional annual $15 million reduction in opex in the second regulatory period. A $15 million adjustment per year in the next regulatory period is equivalent to $59.6 million in NPV terms. This means that in NPV terms, regulated charges are $59.6 million lower in the second regulatory period than they would be if based on actual opex in Year 4.

Table 7 Impact of base year adjustment in second regulatory control period

Forecast opex if based on year 4	Forecast of efficient opex	NPV of benefits to NSP of lower forecast in second regulatory period	NPV of benefits to consumers of lower forecast in second regulatory control period
$95 million p.a.	$80 million p.a.	-$59.6 million	$59.6 million

2.4 Proposed approach - calculation of carryover amounts

Carryover amounts are based on the forecast opex approved for the regulatory period, and the actual opex incurred during this period. While we propose to retain the existing form of the EBSS, we propose some changes to how we would calculate the carryover amounts under the EBSS. These changes are based on our experience in implementing the EBSS over the past five years.

For the purposes of calculating the carryover amounts we propose to only make adjustments or exclusions to:

- Adjust forecast opex to add any approved revenue increments or subtract any approved revenue decrements made after the initial regulatory determination. This may include approved pass through amounts or opex for contingent projects.
- Adjust actual opex to add capitalised opex that has been excluded from the Regulatory Asset Base.
- Exclude any category of costs from forecast and actual opex where the exclusion of these costs would better achieve the requirements of clauses 6.5.8 and 6A.6.5 of the NER. This will include

exclusions for cost categories such as debt raising costs where we do not use a revealed cost approach to forecasting.

- Adjust forecast opex and actual opex for inflation so that the real value of the carryover amounts is consistent with the real value of the other components of the NSP's regulated revenue.

At the time of the regulatory determination all forecast adjustments or exclusions will be listed in the determination. We will also retain discretion to make further additional adjustments or exclusions when calculating the carryover amounts.

Overall, our proposed approach aims to ensure the exclusions or adjustments we allow are more consistent with the matters we must consider under the NER. In practice these changes are expected to affect the operation of the current scheme by:

- no longer allowing specific exclusions for uncontrollable opex, or adjustments for changes in opex due to unexpected increases or decreases in network growth
- allowing ex post adjustments to the carryover amounts in some circumstances
- including both forecast and actual opex for pass-through events in the calculation of the carryover amounts.

Our reasons for proposing the changes are set out below.

We also note that all changes proposed in this explanatory statement would only affect how carryover amounts are calculated for future regulatory control periods. It would not affect the calculation of carryover amounts from the current regulatory control period. Calculation of carryover amounts in the current period is subject to the existing EBSS for DNSPs and TNSPs.

2.4.1 Uncontrollable opex and growth

Currently we allow exclusions for uncontrollable opex and adjustments to the carryover amounts where actual opex for network growth differs from forecast. Exclusions for uncontrollable costs are generally supported by NSPs.[33] Of the submissions from consumer representative groups, MEU did not support such exclusions.[34] COSBOA and PIAC considered there should be no default exclusions for uncontrollable costs.[35]

As described in this explanatory statement, efficiency gains and losses are shared approximately 30:70 between NSPs and consumers where we apply an unadjusted base year approach in combination with the EBSS. This means the benefits and costs of any forecasting error are also shared approximately 30:70 between NSPs and consumers. This includes the risk associated with all unexpected changes in opex, including uncontrollable opex and growth.

If however, we made adjustments to the carryover amounts for uncontrollable opex and for network growth, the risk of forecasting error is shared between NSPs and consumers as if no scheme applies. For instance, if we did not include any uncontrollable costs in forecast opex, a NSP would bear all the cost of such an increase. It would also keep the benefits of any uncontrollable cost decrease. Any

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[33] CitiPower et al, *Submission on Issues Paper*, p. 14; ENA, *Submission on Issues Paper*, p. 28; Energex, *Submission on Issues Paper*, p. 8; Ergon Energy, *Submission on Issues Paper*, p. 9; Grid Australia, *Submission on AER Expenditure Incentives Issues Paper*, pp. 34-35; Jemena, *Submission on AER Expenditure Incentives Issues Paper*, p.4; SP AusNet, *Submission on Issues Paper*, p. 6.

[34] MEU, *Submission on Issues Paper*, p. 30.

[35] COSBOA, *Submission on Issues Paper*, p. 17; PIAC, *Submission on Issues Paper*, p. 27.

unexpected increase or decrease in opex related to network growth would be factored into forecast opex in the next period. Therefore, by adjusting the carryover amounts for unexpected changes in opex due to network growth, the expected share of benefits and costs to the NSP of the total increase or decrease in opex would be the same as if no EBSS applied at all. Without an EBSS the share of benefits (or costs) to a NSP of an underspend (or overspend) declines over the regulatory period.

We have reconsidered our approach to adjustments for uncontrollable opex and growth. For the following reasons it is not apparent we need to make special consideration for uncontrollable opex or network growth under the EBSS.

1. We consider there is no compelling reason why the forecasting risk associated with uncontrollable opex or growth should be shared differently between NSPs and consumers when compared with how the forecasting risk associated with controllable opex is shared. For instance if there is an unexpected cost increase (such as network growth) over the period, NSPs will only pay for 30 per cent of the cost of the increase, while consumers will pay for 70 per cent of the increase. If the cost is excluded from the scheme, the sharing ratio is different. It is not apparent why an alternative ratio for sharing the benefits and costs of a relatively unexpected cost change is preferable.

2. If the cost of an uncontrollable event is significant, a NSP may apply for it to be a recognised pass-through event. If the opex is approved as a recognised pass-through event, we will make the necessary adjustment when calculating the carryover amounts.

3. In reconsidering what adjustments we should allow under the EBSS, we have closely aligned the possible adjustments with the matters we must have regard to under the NER.[36] Under clauses 6.5.8 and 6A.6.5 of the NER an efficiency gain is where actual opex is less than forecast opex, while an efficiency loss is where actual opex is greater than forecast opex. The relevant clauses in the NER do not distinguish between uncontrollable opex and controllable opex when determining efficiency gains or losses. Therefore it is not apparent that the scheme needs to make special consideration for such costs.

We note that this is a consistent approach to our proposed treatment of uncontrollable capex and growth under the CESS.

2.4.2 Other exclusions or adjustments

The EBSS must provide for a fair sharing of efficiency gains and losses between NSPs and consumers.[37] When implementing the EBSS we must have regard to a number of matters including:

- the desirability of both rewarding NSPs for efficiency gains and penalising NSPs for efficiency losses.
- the need to provide NSPs with a continuous incentive to reduce opex.[38]

As outlined earlier in this explanatory statement, where we use an unadjusted base year approach to forecast opex, the EBSS ensures an efficiency gain or loss will be shared 30:70 between NSPs and consumers. This provides NSPs with a continuous incentive to reduce its opex.

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36 NER, Cl. 6.5.8(c) and 6A.6.5(c).
37 NER, Cl. 6.5.8 and Cl. 6A.6.5.
38 NER, Cl. 6.5.8(c) and 6A.6.5(c).

However, where we use other methodologies to forecast a specific category of opex, the incentives facing a NSP may be different – particularly in the expected base year. There may not be fair sharing of efficiency gains in these circumstances.

For instance, if a NSP expects we will use a bottom-up forecast in the next regulatory control period to forecast a specific type of opex, it would face a very strong incentive not to spend opex in that category in the base year. This may not benefit consumers.

In these circumstances, for an incremental reduction in opex in the base year, the NSP would receive four years of positive EBSS carryover amounts in the next regulatory period. However, if a bottom-up forecasting approach is also used to forecast part of opex in the next period, the actual opex the NSP incurred in the base year may not lower its forecast opex in the next period. Where some opex has been deferred until after the base year, the NSP's bottom-up forecast of opex in the next period may even increase. The benefits the NSP receives through EBSS carryover amounts may be far greater than the total benefits of the underspend in this category of opex in the base year. Consumers may be worse off. We consider that in these circumstances the cost to electricity consumers would not justify the EBSS reward received by the NSP. We consider the EBSS would not provide for a fair sharing of efficiency gains for this reason.

One type of cost we typically forecast using a different methodology to revealed costs is debt raising costs. For this reason we have typically excluded debt raising costs when calculating the EBSS carryover amounts.

However, under the current EBSS, we can only exclude costs such as debt raising costs if we consider the costs are uncontrollable and do not adversely affect the operation of the EBSS. This does not accurately reflect why we exclude costs such as debt raising costs.

For the revised EBSS, we propose a broader criteria that excludes any categories of costs where the exclusion of these costs would better achieve the requirements of clauses 6.5.8 and 6A.6.5 of the NER.

When applying this criteria, we propose to exclude any discrete category of costs where we do not expect we will use a revealed cost approach to forecasting these costs at the next regulatory determination. We expect to continue to exclude debt raising costs from the calculation of the carryover amounts for this reason. Submissions from APA Group, CitiPower/Powercor/SA Power Networks and Grid Australia all supported exclusions where we use a benchmark rather than revealed costs to forecast opex.[39]

However, while debt raising costs is currently the only cost category we consistently forecast using a different methodology, in the future there may be other categories of opex where we use alternative forecasting approaches. If we limit our discretion in relation to how the EBSS is applied, we are likely to increase the risk of perverse outcomes. For instance, as outlined above, where we do use a different methodology to forecast any category of opex, in some circumstances, NSPs could receive significant windfall gains and consumers could face significant windfall losses. For this reason, if we change our approach to forecasting any specific category of costs between regulatory periods, we propose to also exclude those costs when calculating the carryover amounts for the current period.

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[39] APA Group, *Submission on Issues Paper*, p 6; CitiPower et al, *Submission on Issues Paper*, p. 18; Grid Australia, *Submission on AER Expenditure Incentives Issues Paper*, p.35.

We recognise that our proposed approach may introduce some uncertainty about what the carryover amounts will be. Regulatory certainty was raised by several stakeholders as a reason why all excluded cost categories should be specified ex ante in the regulatory determination.[40]

However, when implementing the EBSS we must consider the matters set out under clauses 6.5.8 and 6A.6.5 of the NER. We consider that greater flexibility in our approach is preferable given there is a possibility that the EBSS will not provide for fair sharing in some circumstances. [41] We consider this objective takes preference over achieving regulatory certainty.

We also note that the proposed change would still mean a NSP faces an incentive to deliver opex lower than forecast opex in the regulatory period. For instance, even if we excluded some costs ex post from the calculation of the carryover amounts, a NSP would still receive a net benefit where it delivered actual opex lower than forecast opex in the relevant year(s). By excluding some costs, the proposed change in approach will ensure that the benefits of an efficiency gain to a NSP do not exceed the total benefits of an efficiency gain. This will help to ensure that consumers do not face higher regulated charges as a result of an efficiency gain. We consider this to be consistent with the objective of an EBSS.[42]

Another type of costs we would exclude under this criteria are costs arising from a change in the definition of a regulated service. For instance, if a NSP expects a service will be unregulated in the next period, it has an incentive to reduce the costs relating to this service in the base year. It would then receive the benefits of four years of positive carryover amounts in the base year, but its opex in the base year would not affect its forecast. It may be able to increase the cost of the service in the next period once the service is unregulated. Its incentives may not be continuous. For this reason we consider that excluding these discrete costs from the EBSS would also be appropriate.

2.4.3 Pass-through events and other changes to forecast opex during a regulatory period

During a regulatory control period we may approve additional increments or decrements to forecast opex. This includes opex for recognised pass-through events and opex for contingent projects.

When calculating carryover amounts, we consider this type of opex should be recognised in the same way as opex approved prior to the regulatory control period. Thus we propose to implement this adjustment by adding the approved amount to forecast opex in the years the additional expenditure was approved.

This would be a minor change compared to how we have previously implemented such adjustments. For instance, in the past where there was an approved pass-through amount, we did not add it to forecast opex. To ensure consistency in the carryover calculations, we instead excluded the estimated actual opex relating to the pass-through event.

We consider that our proposed change is relatively simpler to implement. It would also ensure a NSP's incentive in relation to pass-through expenditure is consistent with its incentive for other categories of opex. This approach is also consistent with the proposed approach for the CESS.

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40 CitiPower et al, *Submission on Issues Paper*, p. 19; ENA, *Submission on Issues Paper*, p. 28; Energex, *Submission on Issues Paper*, p. 8; Ergon Energy, *Submission on Issues Paper*, p. 9; Grid Australia, *Submission on AER Expenditure Incentives Issues Paper*, p.35.

41 Cl. 6.5.8 and Cl. 6A.6.5.

42 Cl. 6.5.8 and Cl. 6A.6.5.

2.4.4 Capitalisation of opex

We must also have regard to the possible effects of the scheme on any incentives that NSPs have to capitalise expenditure.[43]

Where opex incentives are balanced with capex incentives, a NSP does not have an incentive to favour opex over capex or vice-versa. In these circumstances a NSP would not face an incentive to capitalise opex or vice-versa.

As outlined in our Capex Incentive Guidelines, we are proposing a symmetric capex scheme, with a 30 per cent incentive power. This is consistent with the incentive power for opex when we use an unadjusted base year approach in combination with an EBSS. As the incentives for opex and capex would be balanced in these circumstances, we do not expect we would need to make adjustments to the carryover amounts to reduce its incentive to inappropriately capitalise opex.

However, in some circumstances, a NSP's incentives to undertake opex and capex may not be balanced. For instance, where a NSP expects its forecast in the next period will be lower than its actual opex in the current period we will strengthen its incentive to reduce its opex in the current period. A NSP's incentive to reduce its opex will increase in relation to its incentive to reduce its capex. It will possess a relatively stronger incentive to capitalise opex.

As it is possible a NSP may face unbalanced incentives in some circumstances, we propose to continue to make adjustments to the carryover amounts for changes in capitalisation policy where we consider the opex and capex incentives to be unbalanced.

Where we decide that this is the case, we will not include capitalised opex in the NSP's RAB. We would instead add the capitalised opex to actual opex for the purposes of calculating the carryover amounts. This will lead to the same outcomes as if the NSP had not changed its capitalisation policy. The process for assessing capitalisation policy changes is outlined in the Capex Incentive Guidelines.[44]

2.4.5 Treatment of inflation

When we calculate the carryover amounts we must inflate forecast and/or actual opex consistently. If there is inconsistent application of inflation, the real value of the carryover amounts will be inconsistent with the other components of the NSP's regulated revenue.

This is not a change in our position. However we consider such a practice should be formalised within the scheme.

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[43] Cl. 6.5.8(c)(4) and 6A.6.5(c)(3)

[44] AER, *Draft Capital Expenditure Incentive Guidelines*, August 2013.

A Summary of submissions

Issue	Respondent	View
General	Actew AGL	The EBSS provides the incentive both to continually reduce costs to gain a share of benefits of doing so and to avoid unnecessary increases in costs due to the penalty incurred.
	APA Group	Considers the current EBSS operates to incentivise businesses to remain within expenditure allowances, without sufficient attention to whether this represents an efficient outcome.
	CitiPower/Powercor/SA Power Networks	The default position should be that incentive schemes are linked to revealed costs, except in exceptional circumstances. Support the current EBSS but suggest that where DNSPs are approaching the frontier they should be provided with a higher sharing ratio to encourage further pursuit of efficiencies that are harder and riskier to obtain.
	Council of Small Business Australia (COSBOA)	Remain unconvinced that the current revealed cost approach to setting allowed opex, and the current EBSS are working as well as suggested in the Issues Paper. It is difficult to conclude unequivocally that the existing split for benefit sharing should be supported, although it has about the right intuitive feel.
	Energex	Does not consider the available evidence demonstrates the existing revealed cost approach is deficient and isn't aware that a sufficiently robust exogenous method for determining base opex is open to the AER. For this reason supports the continued use of the current EBSS. Concerned that the incentive framework is becoming increasingly complicated and suggests the AER adopt a simple approach and not attempt to pursue false precision.
	Energy Networks Association (ENA)	Supports the continued use of the EBSS. Has significant concerns around the proposed use of exogenous forecasting techniques. Considers that should the AER pursue such an avenue then we should explore how this can be accommodated through adjustments to the opex base year, whilst retaining the current EBSS rather than implementing a new EBSS altogether.
	Ergon Energy	Considers the EBSS has encouraged DNSPs to reveal their efficient costs. Supports the continued use of a revealed cost approach and believes it would be prudent to retain the current opex EBSS.
	Grid Australia	Agrees that we should continue to apply a continuous and symmetrical scheme when applying the revealed cost approach for setting opex. Considers the proposal for a fixed sharing ratio when using exogenous forecasting has merit. In the absence of such a ratio, Grid Australia considers the power of the incentives would be inappropriately high.

Issue	Respondent	View
General	Major Energy Users (MEU)	Considers there is an incentive to inflate Year 4 opex under a base year approach. This can be addressed by either: ▪ setting the future opex allowance based on benchmark data if it is not efficient ▪ implementing an averaging approach if there is concern that there is cost shifting into one year
	Public Interest Advocacy Centre (PIAC)	Existing arrangements have provided a reasonable balance and is probably best to avoid adding any further complexity. Consumers require more transparency rather than complexity. Agrees that the AER's proposed new EBSS appears to provide a practical solution and a degree of consistency with current practices.
	SP AusNet	Evidence suggests the current EBSS is working effectively which is driving NSPs to find opex efficiencies that benefit customers. Considers the administrative simplicity of the current approach benefits both NSPs and the AER.
	Total Environment Centre (TEC)	Does not see any value any making significant changes to the EBSS, assuming that: ▪ the current model is working effectively; ▪ there continues to be no significant rise in year four; ▪ the AER continues to use the revealed costs approach
Balance in incentives	ENA	Considers the AER must ensure that its approach to the various opex, capex and service level schemes is balanced so that networks' incentives are not distorted.
	Energex	Considers it essential that the AER balances opex, capex and service level incentive schemes in order to limit perverse outcomes.
	Enernoc	Considers the balance between capex and opex rewards and penalties to be more important the absolute level of the rewards. The capex scheme should be equal to opex. Failing that, considers it should be at least as strong.
	Grid Australia	Considers the key aspect to achieve a balance in incentives is to equate the respective power for capex and opex.
	PIAC	Unclear what is meant by balancing incentives at a practical level.
	SP AusNet	Considers the power of the opex incentive should balance with the capex incentive and its interaction with other components of the regulatory framework.
Consultation	Grid Australia	Notes a separate formal consultation process would need to apply to make any formal changes to the transmission EBSS.

Issue	Respondent	View
Current EBSS	APA Group	Considers the current EBSS means that minor deviations from the forecast leads to penalties and rewards, which may not reflect efficiency improvements. Considers the AER could introduce deadbands within which the business would receive no reward or penalty.
	MEU	Considers the current EBSS does not address the potential for inflated opex to be used as the basis for setting the opex allowance in the next period. Considers that there is an incentive for businesses to shift expenditure into the base year. Considers that no EBSS positive amounts should be transferred from one regulatory period to the next, although negative amounts should still be imposed.
	NSW DNSPs	The current EBSS is working as intended and provides strong incentives to 'reveal' efficiencies in cost structures.
	PIAC	Appreciates there has been limited time to assess the effectiveness of the current EBSS but considers that some NSPs may be inflating expenditure in the fourth year. Requests the AER should monitor this in the next period.
EBSS with alternative forecasting approaches	APA Group	Notes there is a greater risk of forecasting error with using exogenous benchmarks. Considers there is a far greater risk that a business will not have the opportunity to recover its efficient costs under this approach. This risk must be taken into account in designing the EBSS when using alternative forecasting approaches.
	Jemena	The current EBSS arrangements are relatively simple and well understood by stakeholders. Considers the AER should consider how these existing arrangements can be adapted to the exogenous approach rather than develop new and potentially complex structures.
Exclusions/adjustments	CitiPower/Powercor/SA Power Networks	Considers the exclusion of nominated costs is appropriate. Notes the current guidelines suggest that a cost category should not be excluded if the cost relates to an ongoing business activity. Do not consider this to be an appropriate criterion.
	COSBOA	If certain costs are excluded from the EBSS any incentive to reduce those costs is blunted and all the risks are transferred to consumers. Have a concern that adjustments for growth removes part of the incentive for NSPs to produce accurate forecasts, especially as there is a financial reward to NSPs from over-forecasting and forecasts lack independence. As a general rule suggests the AER consider the proposition that all opex costs should be included in the EBSS and that the onus is placed on the NSP to show cause why particular costs should be excluded.

Issue	Respondent	View
Exclusions/adjustments	ENA	Considers it appropriate to exclude nominated uncontrollable costs. Sees no reason to change current approach that excludes costs from both the base year and the carryover. Considers it would be reasonable for the AER to set out the criteria to guide which costs should be nominated by the network as excluded costs.
	Energex	Agrees that uncontrollable costs should be excluded. Considers that an adverse exogenous 'event' which is material but fails to satisfy the definition of materiality for a cost pass-through should be excluded. Considers that rather than define specific costs for exclusions, the AER should provide clear criteria for excluding costs to be determined prior to the commencement of the regulatory period.
	Enernoc	One of the advantages of demand response opex, which manages peak demand, is that it can be planned and implemented relatively quickly. Consider it is important that NSPs have the ability to initiate demand response projects without being penalised for the increased opex.
	Ergon	Believes the current arrangements provide certainty and therefore does not regard changes as necessary although considers it appropriate for the AER to set out the criteria to guide which costs should be excluded. Does not believe that costs beyond the control of DNSPs should be considered in an efficiency assessment process.
	Grid Australia	It is appropriate for the current EBSS guideline to exclude a standard set of categories of costs. Exclusions should be based on the AER and industry's experience with applying the scheme to date. Considers that debt and equity transaction costs and uncontrollable costs should continue to be excluded from the scheme.
	MEU	Consumers have to pay for all opex regardless whether it is controllable or uncontrollable. The incentive program is intended to replicate the competitive market, and firms have to accommodate both within their product pricing in the competitive market. If there are costs excluded though the EBSS, considers the costs should be pre-determined and a method implemented to ensure that the costs are legitimate and not inflated. Also considers that the EBSS should be adjusted to reflect only the efficiencies NSP has instituted rather than be allowed windfall gains and losses.
	PIAC	Considers that adjustments to reflect differences between actual demand growth removes some of the incentives to prepare more accurate forecasts and transfers the penalties for such forecasting error to consumers. Considers this might be reasonable if there was no incentive to bias the forecast in the first place.

Issue	Respondent	View
Exclusions/adjustments	SP AusNet	Agrees NSPs should have the option to propose to exclude uncontrollable costs and how they would be dealt with. For some NSPs there will be a benefit in maintaining a complete bundle of costs as this will enable greater flexibility and risk management.
	Victorian Government Department of State Development and Business Innovation (DSDBI)	Costs that have been forecast using a revealed cost approach should not be excluded from the EBSS. Should be some consideration as to whether there should be some ex post adjustment of opex forecasts based on the labour and material indices that were used in developing the opex forecast.
Power of incentives	APA Group	Does not consider that allowing a business to retain only 30 per cent of any efficiency improvement provides sufficient return for harder or riskier efficiency initiatives. Also considers that it does not provide an incentive for long term efficiency gains. Considers that where an exogenous benchmark is used to set an opex allowance below a firm's actual costs, it will be incentivised to undertake short term cost cutting rather than seek longer term efficiency savings. Considers that the threat of ex post adjustments to forecasts would mean the business could no longer calculate the net value of efficiency improving expenditure. Considers NSPs cannot respond to an incentive they cannot quantify.
	EnerNOC	An incentive power of 30 per cent for opex may be appropriate so long as the power of the incentive for capex is at least 30 per cent.
	ENA	Considers that a 30:70 benefit sharing ratio provides a relatively weak incentive for frontier NSPs to strive for further efficiencies and therefore it may be desirable to provide a higher incentive for such NSPs. Notes that where the AER uses an exogenous benchmark for only 50 per cent of a NSPs costs, under the proposed fixed sharing scheme, the incentive rate will fall from 30 per cent to 19 per cent.
	Ergon Energy	Does not consider the current EBSS provides a 30 per cent incentive to make efficiency improvements.
	Grid Australia	If some NSPs do not respond to incentives, considers there is no reason that setting an expenditure forecast on the basis of an external benchmark will suddenly lead to efficiency improvements. States the AER would need to consider the mechanics for the current EBSS if it considered that a different power of incentive should apply. Provides an outline of the factors the AER should consider when setting the power.
	Jemena	Urges caution with using powerful incentives. Considers there is a strong case for tailoring the application of the incentive arrangements to the circumstances of each NSP. The AER's response should be commensurate with any "problems" evident from the past performance of a given NSP.

Issue	Respondent	View
Power of incentives	PIAC	Questions whether the existing 30 per cent opex incentive power has driven the efficiency improvements that customers might expect. Considers that: ▪ Some NSPs are not responsive to this incentive ▪ Future costs will only be at efficient levels if past costs are at efficient levels ▪ The revealed costs plus 'step and trend' approach leads to an emphasis on factors that increase costs. Requests that consumers be shown more evidence that the current 30 per cent power has worked to drive down NSP operating costs. Does not consider there to be the same drivers for adopting an asymmetrical scheme as capex.
Productivity adjustments	ENA	Notes that rewards and penalties are not entirely symmetrical if the AER, in its determination, applies an additional productivity factor as the benefits of assumed efficiencies are entirely passed on to consumers.
	APA Group	Is concerned that productivity adjustments, in addition to an incentive scheme will disproportionately disadvantage the most efficient businesses and make it more likely that the more efficient firms will face penalties. Therefore urges the AER to reconsider whether it is appropriate to apply productivity adjustments in addition to an incentive scheme.
	Grid Australia	Notes that in the ElectraNet draft determination the AER applied an efficiency factor to the base year level of expenditure as part of its calculation of its opex forecast, which was largely based on ElectraNet's rate of improvement in the current period. Considers that this shouldn't be used in the future. This is because the reward from a subsequent improvement in opex is diminished. Considers that the AER should address this matter so that NSPs have confidence that expected rewards under a sharing scheme will not be eroded at the time of a determination.