Draft decision

Directlink transmission determination

2015-16 to 2019-20

Overview

November 2014

AUSTRALIAN ENERGY REGULATOR

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Note

This overview forms part of the AER's draft decision on Directlink's revenue proposal 2015–20. It should be read with other parts of the draft decision.

The draft decision includes the following documents:

Overview

Attachment 1 – maximum allowed revenue

Attachment 2 – regulatory asset base

Attachment 3 – rate of return

Attachment 4 – value of imputation credits

Attachment 5 – regulatory depreciation

Attachment 6 – capital expenditure

Attachment 7 – operating expenditure

Attachment 8 – corporate income tax

Attachment 9 – efficiency benefit sharing scheme

Attachment 10 – capital expenditure sharing scheme

Attachment 11 – service target performance incentive scheme

Attachment 12 – pricing methodology and negotiated services

Attachment 13 – pass through events

Contents

Shortened forms

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

Shortened form	Extended form
opex	operating expenditure
PPI	partial performance indicators
PTRM	post-tax revenue model
RAB	regulatory asset base
RBA	Reserve Bank of Australia
repex	replacement expenditure
RFM	roll forward model
RIN	regulatory information notice
RPP	revenue pricing principles
SLCAPM	Sharpe-Lintner capital asset pricing model
STPIS	service target performance incentive scheme
TNSP	transmission network service provider
TUoS	transmission use of system
WACC	weighted average cost of capital

1 Our draft decision

Directlink is the transmission network service provider (TNSP) operating the high voltage electricity interconnector that links the NSW and Queensland transmission networks. We, the Australian Energy Regulator (AER), regulate the allowed revenues of Directlink and other TNSPs in the national electricity market (NEM). TransGrid operates as the coordinating TNSP for NSW and collects transmission revenues for the entire region.[1]

This is one of the first draft decisions we have made following changes to the National Electricity Rules (NER) and National Electricity Law (NEL) in 2012 and 2013. The amended NER encourage us to approach decision making more holistically, with a greater emphasis on the efficient costs of providing network services. As part of our Better Regulation program in 2013 we have also developed more sophisticated tools with which we can assess efficient costs. Our Better Regulation Program emphasises the importance of transparency and consultation in making our decisions.

This draft decision is one of the key steps in reaching our final decision. Our final decision will be released in April 2015. Before that, Directlink will have the opportunity to submit a revised proposal in response to this draft decision. Stakeholders will also have the opportunity to make submissions to us on our draft decision and Directlink's revised proposal. Following receipt of the revised proposal and submissions, we will then make our final decision taking everything we have heard into account.

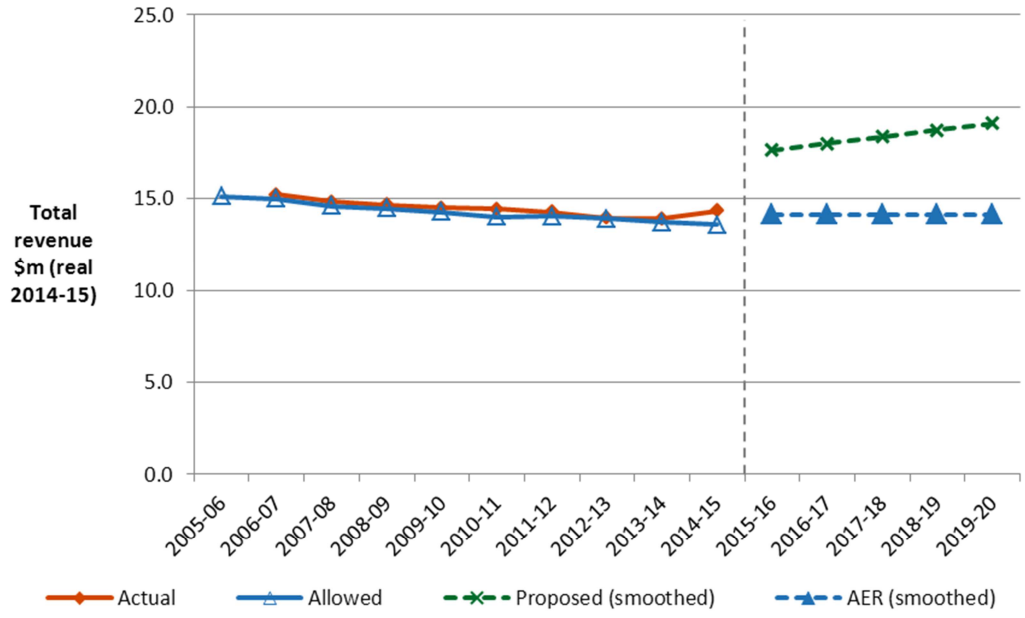
We have made a draft decision on the revenue that Directlink may recover over the 2015–20 regulatory control period. In total, our draft decision provides an allowance of $76.3 million ($ nominal) which Directlink will recover over five financial years beginning 1 July 2015.

Figure 1-1 shows Directlink's past total revenue (both allowed and actual), proposed total revenue and our draft total revenue allowance.[2]

1 Our draft decision on TransGrid's transmission determination for the regulatory control period commencing 1 July 2015 is available on our website: http://www.aer.gov.au/node/23137

2 For actual revenue, the 2013–14 and 2014–15 values are estimates provided by the service provider.

Figure 1-1 Directlink's past total revenue, proposed total revenue and AER draft decision revenue allowance ($ million, 2014–15)



Source: AER analysis.

If we had accepted Directlink's proposal, it would have been permitted to recover $99.3 million ($ nominal) in allowed revenue over the 2015–20 regulatory control period. We are not satisfied that this proposed revenue would contribute to the achievement of the National Electricity Objective (NEO) to the greatest degree required by the National Electricity Law (NEL).

This document provides the reader with an overview of our draft decision. It offers an insight into the issues we have considered, the conclusions we made and how those conclusions were reached. Detailed reasons for each of the elements of our draft decision can be found in the attachments and appendices accompanying this overview.

Directlink's proposal puts forward revenue above its current levels. Our view of the underlying drivers impacting this proposal, however, is that revenue ought to be broadly in line with the 2005–15 regulatory control period. The underlying drivers of the costs of providing transmission services that are reflected in this decision are:

- current financial market conditions, which support a lower rate of return than Directlink has proposed
- Directlink's recent operational history, including the 2012 fire at the Mullumbimby Converter Station, and the implications of this both for actual expenditure in the 2005–15 regulatory control period and the forecast expenditure Directlink now proposes for the 2015–20 regulatory control period.

Our draft decision sets an overall revenue allowance for Directlink that is lower than its proposal. We consider this is appropriate, given the key drivers of efficient revenue for the 2015-20 period. It is also consistent with trends that have tended to moderate the need for investment in the electricity network sector.

Key constituent decisions

Our draft decision is predicated on a number of constituent components.[3] We list these constituent components in appendix A. Their combined effect is an overall revenue allowance for Directlink that is broadly consistent with its current levels, and a reduction of around 23 per cent from Directlink's proposed total revenue forecast. We have set out more detailed reasoning for each constituent component in our attachments and appendices.

Our total revenue allowance reflects adjustments we have made to key aspects of Directlink's proposal. These include:

- Rate of return. We are not satisfied that Directlink's proposed 8.06 per cent return achieves the allowed rate of return objective.[4] We have therefore not accepted Directlink's proposal. The NER define the rate of return objective as follows: that the rate of return be commensurate with the efficient financing costs of a benchmark efficient entity with a similar degree of risk as that which applies to Directlink in respect of the provision of many network services.[5] Using our rate of return guideline as a starting point, we have allowed a rate of return of 6.80 per cent (nominal vanilla) that we are satisfied achieves the rate of return objective and the NEO and will allow Directlink to fund its network investment.

- Total forecast capital expenditure (capex). We are not satisfied that Directlink's proposed total capital expenditure (capex) forecast of $35.19 million ($2014-15) reasonably reflects the capital expenditure criteria. Our proposed substitute capex forecast, based on our review of Directlink's asset management practices and a technical review of each of the capex projects proposed by Directlink, is $25.63 million ($2014–15), which represents around a 27 per cent reduction compared to Directlink's proposal. We have based this substitute estimate on our assessment of the prudency of projects Directlink put forward as likely to be required in the 2015-20 regulatory control period, and the efficiency of the costs it has attributed to those projects in developing its proposal. We consider that in a number of cases Directlink has overstated the need for, and likely efficient cost of, those projects.

- Total forecast operating expenditure (opex). We are not satisfied that Directlink's proposed total forecast opex of $26.5 million ($2014–15) reasonably reflects the operating expenditure criteria. Our proposed substitute opex forecast is $16.7 million ($2014–15), which represents a reduction of 37.2 per cent compared to Directlink's proposal. We consider the costs Directlink attributes to operating and maintenance, insurance and the commercial services fee are above those that would be incurred by an efficient service provider.

We are satisfied that our draft decision strikes an appropriate balance between the efficient investment, operation and use of electricity services that contribute to the achievement of the NEO. We are satisfied the overall revenue allowance we propose for Directlink provides a return sufficient to promote efficient investment, while also providing Directlink incentives to operate its network more efficiently.

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3 NER, cl. 6A.14.1.
4 NER, cl. 6A.6.2(b).
5 NER, cl. 6A.6.2(b).

2 About our draft decision - context and framework

The NEL anticipates that there may be two or more possible outcomes that will or are likely to contribute to the achievement of the NEO. In those cases, we must make the decision we are satisfied will contribute to the NEO to the greatest degree.[6]

This overview sets out why we are satisfied that our draft decision will contribute to the achievement of the NEO to the greatest degree.[7] Specifically, we address section 16 of the NEL which sets out how we must exercise our regulatory functions and powers. This overview sets out our holistic analysis. The Australian Energy Market Commission (AEMC) and Ministers considered taking a more holistic approach is essential to our task, under the regulatory and limited merits review regimes.[8] The attachments and appendices that follow include more specific detailed analysis for each constituent component of this draft decision. This overview is based on that detailed analysis, especially in identifying key interrelationships that drive our overall draft decision.[9]

The NEL and the NER provide the legal framework under which we operate. The National Electricity Objective (NEO) is the central feature of the legal framework. The NEO is to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to—

> price, quality, safety, reliability and security of supply of electricity; and
>
> the reliability, safety and security of the national electricity system.[10]

The NEL also includes the revenue and pricing principles (RPP), which support the NEO.[11] As the NEL requires,[12] we have taken the RPPs into account throughout our analysis. The RPPs are:

> A regulated network service provider should be provided with a reasonable opportunity to recover at least the efficient costs the operator incurs in—
>
> - providing direct control network services; and
> - complying with a regulatory obligation or requirement or making a regulatory payment.
>
> A regulated network service provider should be provided with effective incentives in order to promote economic efficiency with respect to direct control network services the operator provides. The economic efficiency that should be promoted includes—
>
> - efficient investment in a distribution system or transmission system with which the operator provides direct control network services; and
> - the efficient provision of electricity network services; and
> - the efficient use of the distribution system or transmission system with which the operator provides direct control network services.

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6 NEL, s. 16(1)(d).

7 For the reasons set out throughout this decision, we do not consider Directlink's proposal would contribute to the achievement of the NEO. Therefore, we do not need to address s. 16(1)(d) of the NEL. However, in any case, our reasoning demonstrates that we are also satisfied that our draft decision would contribute to the achievement of the NEO to a greater degree than Directlink's proposal.

8 AEMC, *Rule Determination National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2012, National Gas Amendment (Price and Revenue Regulation of Gas Services) Rule 2012,* pp. xi, 10, 19, 35, 148.

9 See especially sections 5 and 6 below.

10 NEL, s. 7.

11 NEL, s. 7A.

12 NEL, s. 16(2).

Regard should be had to the regulatory asset base with respect to a distribution system or transmission system adopted—

- in any previous—
  - as the case requires, distribution determination or transmission determination; or
  - determination or decision under the National Electricity Code or jurisdictional electricity legislation regulating the revenue earned, or prices charged, by a person providing services by means of that distribution system or transmission system; or
- in the Rules.

A price or charge for the provision of a direct control network service should allow for a return commensurate with the regulatory and commercial risks involved in providing the direct control network service to which that price or charge relates.

Regard should be had to the economic costs and risks of the potential for under and over investment by a regulated network service provider in, as the case requires, a distribution system or transmission system with which the operator provides direct control network services.

Regard should be had to the economic costs and risks of the potential for under and over utilisation of a distribution system or transmission system with which a regulated network service provider provides direct control network services.

We regulate TNSPs' revenue allowances for providing electricity network services in the NEM. The NEL and NER operate to allow a TNSP a reasonable opportunity to recover at least efficient costs. We set revenue allowances to balance all of the elements of the NEO and RPPs, consistent with Ministers' views that all of these principles are equally vital.[13] The revenue allowance determines the amount that TNSPs can recover from customers through network charges.

Chapter 6A of the NER provides specifically for the economic regulation of TNSPs. It includes detailed rules about the constituent components of our decisions, which are intended to contribute to the achievement of the NEO.[14]

Given this legislative framework, we consider the NEO and how to achieve it throughout our decision making processes.

2.1 Structure of our draft decision

Our draft decision consists of two parts:

Part A: Overview

This overview sets out why we consider our overall draft decision contributes to the achievement of the NEO to the greatest degree. The overview:

- states our draft decision to reject Directlink's proposal and the total revenue allowance we propose to approve
- outlines the context and framework of our decision. It discusses the NEO[15] and section 16 of the NEL, being the manner in which we must perform our economic regulatory functions and powers

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13 Hansard, SA House of Assembly, 27 September 2007 pp. 965

14 NEL, s. 88.
AEMC, *Rule Determination National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2012, National Gas Amendment (Price and Revenue Regulation of Gas Services) Rule 2012,* p. 8.

- sets out the reasons for our overall decision, including why we consider our approach will, or is likely to, contribute to the achievement of the NEO.

Part B: Attachments

Our attachments support the overview by setting out:

- our detailed analysis of Directlink's regulatory proposal and our detailed reasons for developing an alternative total revenue allowance, by building block, and why we are satisfied that our decision, as a whole, contributes to the achievement of the NEO
- our demonstrated account of the revenue and pricing principles
- a compilation of the constituent components of our draft decision.

2.2 What is different about this decision?

This is one of the first draft decisions we have made following changes to the NEL and NER in 2012 and 2013. The NEL and NER were changed to provide greater emphasis on the NEO and greater discretion to us.[16] The amended NER allow and encourage us to approach decision making more holistically to meet overall objectives consistent with the NEO and RPPs.[17] These changes also sought to give consumers a clearer and more prominent role in the decision making process.[18]

In 2013, the NEL was changed with similar aims in mind. Energy Ministers intend that the long term interests of consumers should be a key focus in determining our decision.[19] The changes also discourage a narrow focus on individual constituent components of our decisions, and encourage analysis of the decision as a whole in light of the NEO when making decisions on constituent components.[20]

These legislative changes have made this decision different from our previous decisions. In particular, for the first time, we have specifically assessed our overall revenue decision and its contribution to the achievement of the NEO.[21] We consider this an appropriate change as we determine an overall revenue allowance.[22] We do not seek to interfere in the decisions a TNSP will make about how and when to spend the total capital and operating expenditure allowances to run its network. For example, we do not seek to approve individual capital expenditure (capex) projects that a TNSP must then implement. Rather, we determine what costs may reasonably form part of the sum total of revenue

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15 NEL, s. 16.

16 NEL, ss. 16(1)(d) and 71P(2a)(c).
AEMC, *Rule Determination National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2012, National Gas Amendment (Price and Revenue Regulation of Gas Services) Rule 2012*, pp. i, iii, iv, vi, vii, 8, 24 32, 36, 38, 45, 49, 67, 68, 90, 96 106, 112 and 113.
Hansard, SA House of Assembly, 26 September 2013 p. 7172.

17 For example, NER, cll. 6A.6.2(b), 6A.6.6(a), 6A.6.7(a).
AEMC, *Rule Determination National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2012, National Gas Amendment (Price and Revenue Regulation of Gas Services) Rule 2012*, pp. xi, 10, 19, 32 and 35.

18 AEMC, *Rule Determination National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2012, National Gas Amendment (Price and Revenue Regulation of Gas Services) Rule 2012*, esp. pp. 166–170.

19 Hansard, SA House of Assembly, 26 September 2013 p. 7171.

20 NEL, ss. 2, 16, 71A and 71P which focus the AER's decision making and merits review at the overall decision, rather than its constituent components.
Hansard, SA House of Assembly, 26 September 2013 pp. 7171 and 7173; See also NEL, ss. 2, 16 and 71A which focus the AER's decision making and merits review at the overall decision, rather than its constituent components.
SCER, *Regulation Impact Statement – Limited Merits Review of Decision-Making in the Electricity and Gas Regulatory Frameworks*, 6 June 2013 pp. i, ii, 6–7, 10, 36, 41 and 76.

21 See Sections 5 and 6.

22 NEL, ss. 2, 16, 71A and 71P.

that we consider satisfies the requirements of the NEL and NER.[23] Consistent with incentive regulation, it is then for the TNSP to determine the particulars of how this allowance is applied in the next regulatory control period. As the overall revenue allowance is the key binding feature of our draft decision, it is important that we specifically assess its contribution to the achievement of the NEO.

2.3 Understanding the NEO

The NEO is to promote three factors for the long term interests of consumers:

- efficient investment in
- efficient operation of
- efficient use of

electricity services.

Energy Ministers have provided us with a substantial body of analysis and explanation that guides our understanding of the NEO.[24] The long term interests of consumers are not delivered by any one of the NEO's factors in isolation, but rather by balancing them.[25]

In general, we consider that we will achieve this balance and, therefore, contribute to the achievement of the NEO where consumers are provided a reasonable level of service at the lowest sustainable price.[26] In most industries, competition creates this outcome. Competition drives suppliers to develop their offerings to attract customers. Where a supplier's offering is not attractive it risks being displaced by other suppliers.

However, in the energy networks industry the usual competitive disciplines do not operate. The TNSPs are largely natural monopolies. Many of the products they offer are essential services for most consumers. Consequently, in an uncompetitive environment, consumers have little choice but to accept the quality and price the TNSPs offer.

The NEL and NER aim to remedy the absence of competition by empowering us, as the regulator, to make decisions that are in the long term interests of consumers. In particular, we might need to require the TNSPs to offer their services at a different price than they would choose themselves. By its nature, this process will involve exercising regulatory discretion to balance the NEO's various factors.

It is important to recognise that there is no unique correct answer that will solely contribute to the achievement of the NEO. The nature of decisions in the energy sector is such that there may be a range of economically efficient decisions, with different implications for the long term interests of consumers.[27] At the same time, however, there are a range of outcomes that are unlikely to advance the NEO to a satisfactory extent. For example, we do not consider that the NEO would be advanced if allowed revenues encourage overinvestment and result in prices so high that consumers are unwilling

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[23] AEMC, *Rule Determination National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2012, National Gas Amendment (Price and Revenue Regulation of Gas Services) Rule 2012,* esp. p. vii.

[24] Hansard, SA House of Assembly, 9 February 2005 pp. 1451–1460.
Hansard, SA House of Assembly, 27 September 2007 pp. 963–972.
Hansard, SA House of Assembly, 26 September 2013 pp. 7171–7176.

[25] Hansard, SA House of Assembly, 26 September 2013 p. 7173.

[26] Hansard, SA House of Assembly, 9 February 2005 p. 1452.

[27] *Re Michael: Ex parte Epic Energy* [2002] WASCA 231 at [143].
Energy Ministers also accept this view – see Hansard, SA House of Assembly, 26 September 2013 p. 7172.

or unable to efficiently use the network.[28] This could have significant longer term pricing implications for those consumers who continue to use network services. Equally, we do not consider the NEO would be advanced if allowed revenues result in prices so low that investors are unwilling to invest as required to adequately maintain the appropriate quality and level of service, creating longer term problems in the network.[29] This can have adverse consequences for safety, security and reliability of the network.

2.4 Transitional arrangements

In November 2012 the AEMC introduced major changes to the economic regulation of TNSPs under chapter 6A of the NER (the new rules).[30]

These new rules affect Directlink's regulatory control period beginning 1 July 2015.[31] Directlink's prior regulatory control period was from 1 July 2006 to 30 June 2015 (2006-2015 period). Directlink has proposed a five year regulatory control period (1 July 2015 to 30 June 2020) for this review, which we have accepted.

We assessed Directlink's regulatory proposal under version 58 of the NER as modified. Clause 11.58.5 of the Transitional Rules outlines that unlike the new version of the rules, we are excluded from using Directlink's 2006-2015 period to conduct an ex post review of Directlink's capital expenditure.[32] This means we are not permitted to adjust any of Directlink's opening RAB for any inefficient capex (as assessed to reasonably reflect the capex criteria and in a manner consistent with the capex objectives) during the 2006–15 period. However, historical capex and opex does inform our assessment of expenditure forecasts.

28 NEL, s. 7A(7).
29 NEL, s. 7A(6).
30 AEMC Final Rule Determination, *National Electricity Amendments (Economic Regulation of Network Service Providers) Rule 2012*, 29 November 2012 (AEMC Final Rule Determination)
31 NER, cl. 11.58.4(n)
32 NER, schedule 6A.2.2A, cl. 11.58.5

3 Our approach to this decision and why it contributes to the achievement of the NEO

We must perform our functions in a manner that will or is likely to contribute to the achievement of the NEO.[33] This section focuses on the manner in which we have made this draft decision. Section 4 discusses material issues and shows how we take account of stakeholder views. Sections 3 and 4 are largely about our process in line with section 16(1)(a) and (b) of the NEL.

Sections 5 and 6 focus more on the outcome of our decision. Section 5 explains how we have taken into account interrelationships between constituent components of our decision. Section 6 explains why we consider our decision is preferable, in that it contributes to the achievement of the NEO to the greatest degree.

3.1 Better Regulation program

Following the 2012 changes to the NER, we spent much of 2013 consulting on and refining our assessment methods and approaches to decision making. We referred to this as our Better Regulation program. The objective of this program was to refine our approaches, with a greater emphasis on incentive regulation.[34] The resulting guidelines support our decision making framework as set out in section 16 of the NEL.

The Better Regulation program was designed to be an inclusive process that provided an opportunity for all stakeholders to be engaged and provide their input.[35] We tested our views and heard from the full range of stakeholders. Our consultation and engagement gives us confidence the approaches set out in the guidelines will result in decisions that contribute to the achievement of the NEO and form an important baseline in future decision making. In particular, we directly engaged consumers in the process through our Consumer Reference Group.[36] We facilitated direct engagement between network service providers and consumers through participation in forums and almost 140 meetings held with stakeholders over the course of the program.[37] Consumers and network service providers also made written submissions on our draft guidelines and explanatory statements, responded to advice from our experts and provided their own consultant reports.

One of the themes that emerged from our consultation was a desire from stakeholders for clarity about the approach we would take in arriving at our decisions. In particular, many stakeholders argued that greater clarity would aid investment in the sector.[38]

During our consultation processes, there were differences of opinion, particularly between network businesses and consumers. Often there was no consensus. In such cases, we determined an outcome that we were satisfied would best balance the competing interests and the range of factors in the NEL and NER that contribute to the NEO. These outcomes went some way to satisfying all parties. But, often, they were neither the network businesses' nor consumers' preferred outcome. Section 16 of the NEL recognises that the regulatory framework allows for potentially more than one

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33 NEL, s. 16(1)(a).
34 AER, *Overview of the Better Regulation reform package*, April 2014, pp. 4 and 7–13.
35 AER, *Overview of the Better Regulation reform package*, April 2014, pp. 4 and 7–13.
36 AER, *Assessment of the Consumer Reference Group*, March 2014. This document includes information on training provided to CRG members, meetings and CRG member feedback. It can be accessed at www.aer.gov.au/node/19166.
37 AER, *Overview of the Better Regulation reform package*, April 2014, pp. 20–21.
38 See for example – AER, *Rate of Return Guideline*, December 2013 pp. 25 and 66.

outcome and we consider that the guidelines that resulted from this comprehensive engagement with all stakeholders provide a solid foundation for our decision making.

The guidelines we developed include:

- Expenditure forecast assessment guideline – describes the process, techniques and associated data requirements for our approach to setting efficient expenditure allowances for network businesses
- Expenditure incentives guideline – sets out our capital expenditure incentives and efficiency benefit sharing schemes which are designed to give electricity network businesses incentives to spend efficiently and share the benefits of efficiencies with consumers
- Rate of return guideline – sets out how we determine the return that network businesses can earn on their investments. Applied consistently over time, the guideline provides regulatory stability and increased certainty through greater transparency of the key components of the rate of return and how these are assessed.
- Consumer engagement guideline for network service providers – aims to help network businesses develop strategies to engage systematically, consistently, effectively and strategically with consumers on issues that are significant to both parties
- Shared asset guideline – outlines how consumers will benefit from the other services electricity network businesses may provide using the assets consumers pay for
- Confidentiality guideline – sets out how network businesses must make confidentiality claims over information they submit to us. This guideline balances protecting genuinely confidential information with ensuring that stakeholders can access sufficient information on issues affecting their interests.

Our guidelines are available on our website39, and summarised in appendix B.

[39] http://www.aer.gov.au/networks-pipelines/guidelines-and-schemes

4 Material issues and opportunity to be heard

The NEL requires us to inform stakeholders of the material issues we are considering and to give them a reasonable opportunity to make submissions in respect of this decision.

The starting point for our draft decision was to assess Directlink's regulatory proposal against the NEL and the NER. In doing so, we applied our guidelines and assessment tools. We sought, but did not receive, submissions from stakeholders. We considered Directlink's regulatory proposal in light of its performance to date and its operating environment.

Our guidelines assist us in contributing to the achievement of the NEO by providing a consistent and balanced framework that encourages efficiency in electricity networks in the long term interests of consumers.

Effective consultation with stakeholders is essential to the performance of our regulatory functions. In summary, throughout the review process, we engaged with stakeholders by:

- publishing an issues paper in July 2014 to help stakeholders engage with, and meaningfully respond to issues in Directlink's regulatory proposal that we considered material to consumers
- hosting a public forum in Sydney on 10 July 2014 so stakeholders could question both the AER and Directlink on its regulatory proposal.

Throughout the review process AER staff, including our technical advisors, sought additional information and material from Directlink in order to test the material and information which underpins its revenue proposal. We also commissioned the following independent consultants for our draft decision:

- Deloitte Access Economics, for advice on forecast growth in labour costs
- Professor Olan Henry, University of Liverpool, Professor Michael McKenzie, University of Liverpool, Associate professor Graham Partington, University of Sydney, Associate professor John Handley, University of Melbourne and Associate professor Martin Lally, Victoria University of Wellington, for advice on rate of return.

We engaged these consultants to help us determine whether technical aspects of Directlink's proposal are reasonable. The consultants' advice also helps us develop our substitute expenditure forecast (if required). While we seek the consultants' advice and expertise to help understand the proposal from a technical perspective, we are not bound to use the consultants' forecast or adjustments as a replacement. We use judgment in adopting their advice and consider a broader array of interconnecting information including engineering, economic and legal matters.

We also boosted our internal expertise by hiring four in-house technical advisors to provide us with greater industry expertise, particularly in power system engineering. The new technical advisor group was established in October 2013. It brings significant technical knowledge and electricity industry experience to the AER. The technical advisors complement the internal expertise we have already developed. They have improved our use of external consultants and helped implement new regulatory approaches developed under the Better Regulation program. Our staff are also assisted by the ACCC/AER Regulatory Economic Unit (REU). REU comprises seven specialist economists who provide advice to the ACCC's regulatory areas, including the AER whose staffing and support is provided by the ACCC. Six of the seven REU economists have PhDs in economics and related fields.

5 Constituent components and interrelationships

The NEL requires us to specify how the constituent components of our decision relate to each other and how we have taken those interrelationships into account in making our draft decision.[40] When considering any constituent component of a decision as complex as a transmission determination, it is important to also consider the interrelationships between constituent components. Ultimately, a transmission determination is an overall decision and must be considered as such. Considering constituent components in isolation ignores the importance of these interrelationships, would not contribute to the achievement of the NEO and, in the past, has resulted in regulatory failures.[41]

Interrelationships can take various forms including:

- underlying drivers and context are likely to affect many constituent components of our decision. For example, forecast demand affects the efficient levels of capex and opex in the regulatory control period and it also affects how overall revenue is translated into individual prices.
- direct mathematical links between different components of a decision. For example, the value of imputation credits has an impact on the appropriate tax allowance; the benchmark efficient entity's debt to equity ratio has a direct effect on the cost of equity, the cost of debt and the nominal vanilla rate of return.
- trade-offs between different components of revenue. For example, undertaking a particular capex project may affect the need for opex and vice versa.
- trade-offs between forecast and actual regulatory measures. For example, providing more opex for particular forms of insurance or other activities may reduce the need for particular pass throughs. Also, the reasons for one part of a proposal may have impacts on other parts of a proposal. For example, an increase in augmentation to the network means the TNSP has more assets to maintain, leading to higher opex requirements.
- the TNSP's approach and attitude to managing its network. The TNSP's governance arrangements and its approach to risk management will influence most aspects of the proposal, including the capex/opex trade-off.

Interrelationships are also a useful tool when approaching decision making more holistically. This is especially the case for underlying drivers that are likely to affect many aspects of revenue simultaneously. In these cases, individual drivers may substantially influence the overall efficient revenue allowance. As a result, while there is no tool to directly estimate an efficient overall revenue allowance, underlying drivers can indicate the direction and broad magnitude of changes to the efficient level of overall revenue.

Consumer preferences should also be reflected throughout the proposal. More particularly, if the TNSP says investment is needed because consumers want it, the TNSP needs to show that is has effectively engaged with consumers to evidence this is the case. Any deficiency in consumer engagement will mean consumer views will be reflected less in the proposal. This is likely to impact most aspects of the proposal.

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[40] NEL, s. 16(c).

[41] SCER, *Regulation Impact Statement: Limited Merits Review of Decision-Making in the Electricity and Gas Regulatory Frameworks – Decision Paper*, 6 June 2013, p. 6.

5.1 Key drivers impacting revenue

Below, we summarise the key underlying drivers for this decision and illustrate how they impact on the constituent components of our decision. We then examine the cumulative effect of those drivers on the efficient level of overall revenue. In our attachments and appendices, we include our analysis of the other interrelationships between constituent components of this decision.

Financial market conditions

- We estimate the returns on equity and debt for a benchmark efficient business in accordance with our rate of return guideline. This approach supports the allowed rate of return objective in the NER—for the overall rate of return to be commensurate with the efficient financing costs of a benchmark efficient business. The Reserve Bank of Australia target cash rate is lower than it was in 2006. While perceptions of risk increased during the GFC, these have decreased post the height of the GFC. As a consequence, the lower cost of capital for debt and equity translate into lower financing costs necessary to attract efficient investment. Using our rate of return guideline as our starting point we have assessed a rate of return that achieves the rate of return objective and the NEO and will allow Directlink to fund its network investment. This is lower than the rate of return Directlink proposed.

Regulatory asset base

- At the time of our last determination Directlink was a new asset and, as an interconnector, was not expected—in the period covered by that determination—to carry the same requirements for augmentation and asset replacement that are typical of other TNSPs. Events during that period, including a fire at Mullumbimby Converter Station in 2012, were such that assumptions regarding capex requirements made at the time of the previous determination did not hold true.

- While its RAB in that period was not forecast to include new capex, Directlink's opening RAB for this period will be based on its actual capex. This means that the opening RAB at 1 July 2015 is higher than was forecast at the last reset. All else being equal, this would generate higher future revenue requirements than expected at the end of the 2006-15 regulatory control period.

Risk assessment and management

- As noted above, a fire at Mullumbimby Converter Station in August 2012 destroyed Directlink's system 1 converter and the associated converter building. Directlink's opex and capex forecasts for 2015-20 have been informed by its subsequent reassessment of asset risk, and proposed strategies to manage risk going forward.

- Directlink's proposal adopts the premise that a return to 'pre-fire' risk levels does not equate to a return to the same assumptions that underpinned our 2006 decision. Directlink's assessment of its risk has informed both its approach to forecasting its expenditure requirements, and the nature of projects and programs included in its forecasts.

- We consider that Directlink's re-assessment of asset risk does not adequately recognise the impact of the range of measures it now proposes to manage that risk. The expected impact of these works, which we consider should reduce Directlink's risk to at or below pre-fire levels, has been factored into our assessments of plant performance and opex requirements, including insurance.

- For example, Directlink's forecast capex for its cable repairs program (discussed further in attachment 6) assumes that pre-program failure rates will continue unchanged. However, over the

past three years the program has resulted in considerable improvement in cable failure rates. Our substitute estimate of forecast capex therefore reflects these performance improvements. This includes reduced costs for the cable repairs program and related elements of Directlink's capex and opex (operating and maintenance costs, insurance costs) forecasts.

- Significantly increased capex and anticipated increased reliability have also informed our recalibration of Directlink's targets under the STPIS, and our decision to include stricter performance targets in this draft decision.

Efficiency

- Overall, we are not satisfied that Directlink's proposed total opex and capex forecasts reasonably reflect the opex and capex criteria. For the reasons outlined in more detail in attachments 6 and 7, we consider these forecasts exceed the efficient levels of expenditure that a prudent operator would require to achieve the opex and capex objectives.

- Directlink's opex and capex forecasts for the 2015-20 regulatory control period are significantly higher than its expenditure in the current period. These increases are driven to a large extent by expenditure proposed to address the impacts of the 2012 fire. However, our assessment of Directlink's forecasts has identified areas in which the increased requirements contemplated in Directlink's proposal overstate the level of expenditure required to meet the needs identified.

- Directlink argues, and we accept, that given the specific circumstances of its recent operational history a bottom-up assessment of its forecast opex requirement (in place of our preferred revealed cost method) is appropriate. However, our own bottom-up assessment produces a materially lower opex forecast than that proposed by Directlink. In particular, and as indicated above, Directlink's forecast opex does not take into account the reduced opex requirement that will result from the approved elements of its capex program.

- Directlink's capex and opex forecasts also include a number of projects and programs for which there is no demonstrated need: for example, its proposed cable relocation expenditure and emergency lighting upgrade. For others, the need is overstated: for example, an ongoing, annual allowance for restoration of roofing material.

- Consequently, we consider Directlink's forecast opex and capex are overstated. Directlink ought to be able to provide its current level of service and at the same time achieve consistent improvements to its costs of providing these services to consumers.

Individually, each of these key drivers has impacted on the constituent components of our decision. However, it is their cumulative effect that is particularly important. Together, they indicate a consistent picture. Directlink's efficient level of overall revenue during the 2015-20 regulatory control period should decrease substantially compared to its proposal. Despite its recent circumstances, they should continue at levels closer to those approved for the current control period. This is consistent with the overall revenue level deriving from the detailed analysis in our attachments and appendices.

6 Why our decision, as a whole, is preferable

The NEL anticipates that there may be more than one outcome that will or is likely to contribute to the achievement of the NEO. In those cases, we must make the decision we are satisfied will contribute to the achievement of the NEO to the greatest degree.[42]

Under the new framework we have turned our mind to what outcome would contribute to the achievement of the NEO to the greatest degree. There is no sole assessment approach that would enable us to determine this question objectively. The NEL seems to recognise this by making our task subjective. It empowers us to determine what we are satisfied contributes to the achievement of the NEO to the greatest degree.[43] In turn, we must determine how we will satisfy ourselves of this requirement. We consider this inherently involves exercising regulatory judgement.

Consistent with Energy Ministers' views, we consider a decision will contribute to the achievement of the NEO to the greatest degree when we are satisfied that it delivers the best balance between the NEO's factors.[44] To assess this, we specifically consider whether we are satisfied that:

- the overall revenue allowance is consistent with what the key drivers indicate
- the constituent components of a potential decision comply with the NER's requirements.

This is a relative assessment. Some stakeholders may consider some potential outcomes do not contribute to the achievement of the NEO. However, we have not sought to determine that issue. Rather, we have considered which potential outcome we are satisfied makes the greatest contribution to the achievement of the NEO.

We acknowledge that there are a range of alternative outcomes that might contribute to the achievement of the NEO. This is particularly the case because, for several components of our decision (e.g. equity beta or the market risk premium), we could reasonably select several point estimates from within a range. In turn, this could result in different overall revenue allowances.

We do not consider that it is practical or necessary to consider every possible permutation specifically. However, for the reasons in our attachments and appendices we are satisfied that the specific estimates we have selected will or are likely to contribute to the achievement of the NEO to the greatest degree. In particular, we are aware of the consequences of underinvestment for the long term interests of consumers and, therefore, have consistently selected estimates we are satisfied provide Directlink with a reasonable opportunity to recover at least efficient costs.[45] We are satisfied this approach results in an overall decision that contributes to the achievement of the NEO to the greatest degree.

As figure 1-1 (in section 1 of this overview) illustrates, over the 2006-15 regulatory control period, there was a relatively steady trend in Directlink's revenue. Towards the end of that period, operational circumstances including the 2012 fire contributed to higher than forecast levels of expenditure. However, as discussed in section 5, we do not accept that this supports the significant increase in revenues Directlink has proposed. We have also identified several opportunities for Directlink to materially improve efficiency in how it invests in, operates and promotes use of its network. Our draft

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42 NEL, s. 16(1)(d).
43 NEL, s. 16(1)(d)
44 Hansard, SA House of Assembly, 26 September 2013 p. 7173.
45 NEL, s. 7A(2) and (6).

decision reflects these. It sets an overall revenue level consistent with the indications from the key drivers discussed in section 5.

We are not satisfied that Directlink's proposal would contribute to the achievement of the NEO to the greatest degree. Directlink's proposal lists many of the same key drivers of efficient revenue as set out in section 5. However, its proposed overall revenue differs substantially from what the key drivers above indicate is appropriate. The key drivers of efficient revenue indicate that Directlink's proposed revenue is substantially higher than is appropriate. Directlink's proposal does not take into account changes in financial market conditions and the impact of its past and forecast expenditure on future levels of risk and performance, and overstates its revenue requirement for the 2015-20 regulatory control period as a result. Overall, we consider Directlink's proposal would result in a revenue allowance that is substantially greater than necessary for the efficient investment in and operation and use of transmission services. In our view this would not contribute to the achievement of the NEO to the greatest degree.

We acknowledge that our draft decision sets an overall revenue allowance for Directlink that is lower than its proposal. However, we consider this is appropriate, given the key drivers of efficient revenue for the 2015-20 regulatory control period. It is also consistent with trends that have tended to moderate the need for investment in the electricity network sector.

We are also satisfied, for the reasons set out in our attachments and appendices, that the constituent components of our draft decision comply with the NER's requirements.

In addition, we are satisfied that our process for making this draft decision would contribute to the achievement of the NEO to the greatest degree. As discussed in section 3, our decision reflects the approaches set out in our guidelines, which were developed with extensive stakeholder input. We are satisfied they provide a consistent and balanced framework that encourages efficiency in electricity networks for the long term interests of consumers.

As set out in section 4 we have undertaken careful assessment of the information included in Directlink's proposal. Of the options available to us, we are satisfied that our draft decision strikes an appropriate balance between the efficient investment operation and use of electricity services that contribute to the achievement of the NEO. We are satisfied the overall revenue allowance for Directlink provides a return sufficient to promote efficient investment, while incentivising Directlink to operate its network more efficiently.

In our attachments and appendices, we have included detailed analysis explaining why we consider several constituent components of Directlink's proposal do not comply with the NER's requirements.

7 Total revenue requirements

The total revenue cap represents our forecast of the efficient costs a prudent operator would incur in providing transmission network services for the 2015–20 regulatory control period.

7.1 Draft decision

Our draft decision on Directlink's total revenue cap over the 2015–20 regulatory control period is $76.3 million ($ nominal). This is $23 million (or 23.1 per cent) less than Directlink's revenue proposal. Table 7-1 shows our draft decision on Directlink's building block costs and unsmoothed revenues, and the resulting smoothed revenues. Attachments to our draft decision discuss in detail each building block cost and its elements, our approaches to assessment, and the interrelationships between elements and across years. Together, these support our overall revenue allowance.

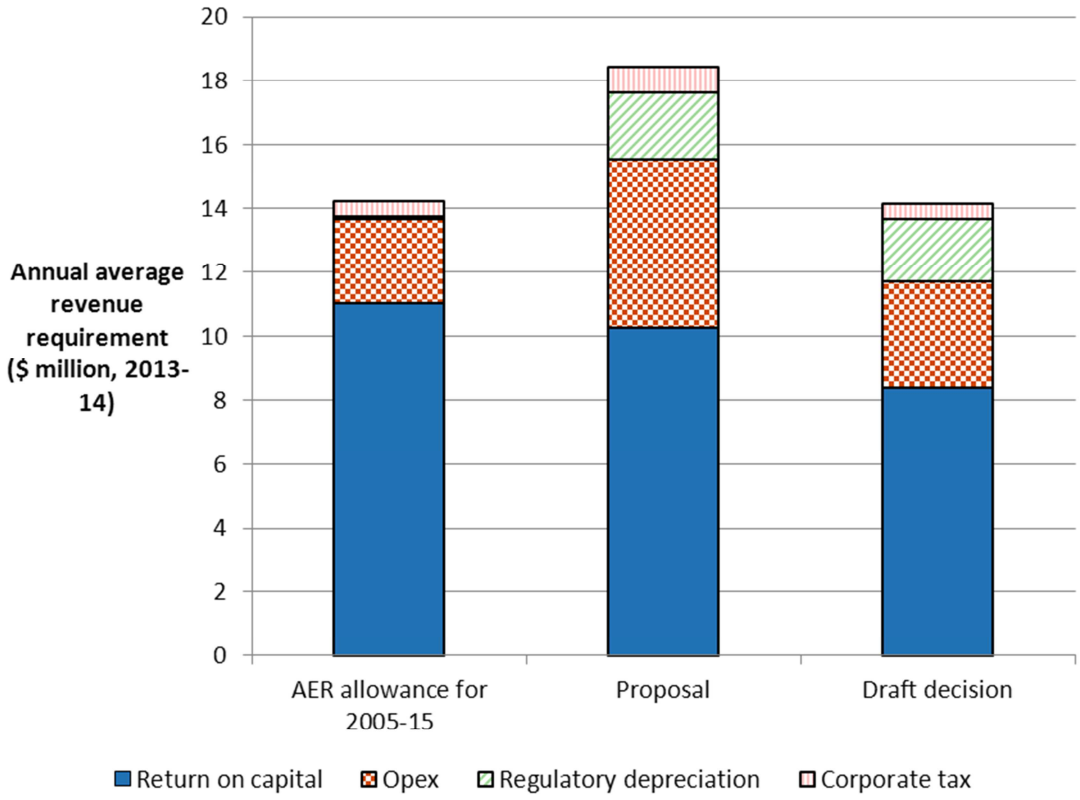
Table 7-1 AER's draft decision on Directlink's proposed revenues ($ million, nominal)

	2015–16	2016–17	2017–18	2018–19	2019-20	Total
Return on capital	8.1	9.0	9.1	9.1	9.2	45.2
Regulatory depreciation	1.6	1.9	2.1	2.3	2.6	10.5
Operating expenditure	4.0	3.3	3.5	3.5	3.6	17.9
Net tax allowance	0.5	0.5	0.5	0.6	0.6	2.7
Annual building block revenue requirement (unsmoothed)	14.9	14.7	15.2	15.5	16.0	76.3
Annual expected MAR (smoothed)	**14.5**	**14.9**	**15.3**	**15.6**	**16.0**	**76.3**
X factor (%)	n/a[b]	0.00%[c]	0.00%[c]	0.00%[c]	0.00%[c]	n/a

Source: AER analysis
(a) Regulatory depreciation is straight-line depreciation net of the inflation indexation on the opening RAB.
(b) Directlink is not required to apply an X factor for 2015–16 because the MAR is set in this decision. The MAR for 2015–16 is around 2.5 per cent higher than the approved MAR ($14.2 million, nominal) in the final year of the 2005–15 regulatory control period (2014–15) in nominal terms, or 0.1 per cent lower in real terms.
(c) The X factor will be revised to reflect the annual return on debt update.

Figure 7-1 compares (on average) our draft decision on Directlink's building block costs against what was proposed by Directlink for the 2015–20 regulatory control period and what were approved for 2005–15.

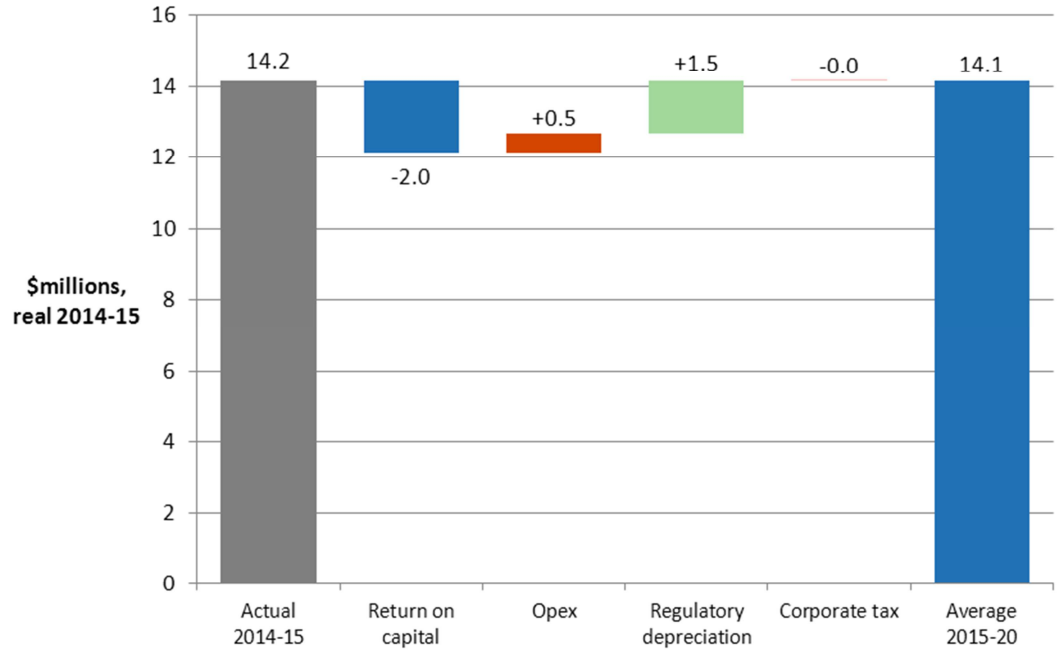
Figure 7-1 AER's draft decision and Directlink's proposed annual building block revenue requirement ($ million, 2014–15)



Source: AER analysis

Figure 7-2 shows the size of the changes in the building block costs from our draft decision and how these impact on revenues on average. The estimated actual revenue for 2014–15 is used as a base from which the impact of the changes can be shown. For example, the most significant change is to the return on capital allowance that decreases the annual building block revenue requirement on average by about $2 million.

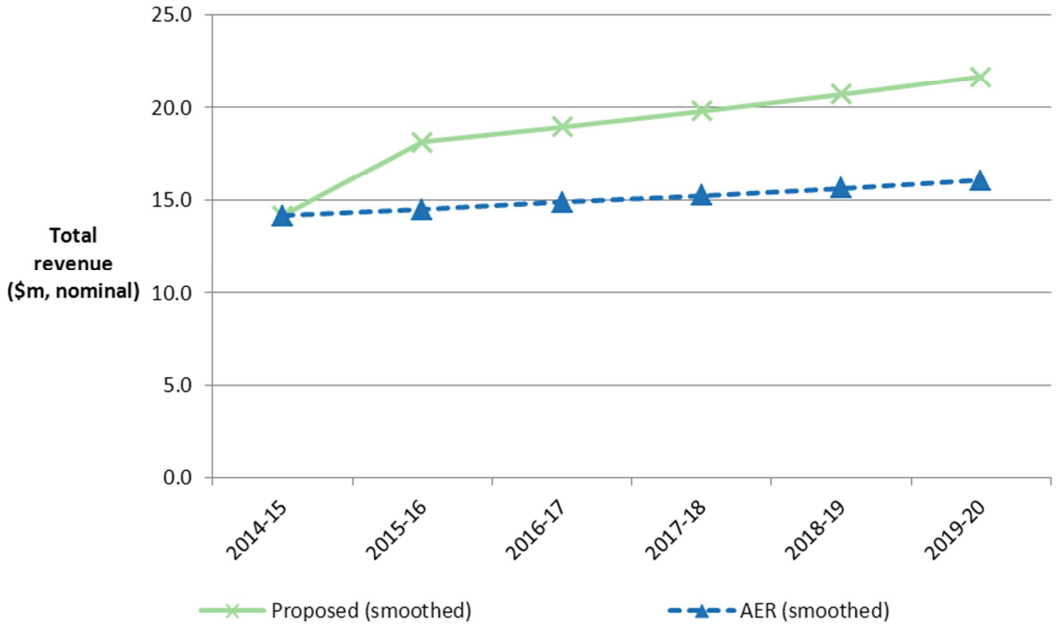
Figure 7-2 AER's draft decision on building block costs ($ million, 2014–15)



Source: AER analysis.
Notes: 'Actual 2014–15' is Directlink's estimate of actual revenue for that year. In order to calculate building block changes, this estimate is notionally divided in the same proportion as allowed building block revenue over the 2005–15 regulatory control period.

Figure 7-3 compares our draft decision on Directlink's expected maximum allowed revenues (MARs) for the 2015–20 regulatory control period with Directlink's proposed MARs for that same period. Attachment 1 provides more detail on the derivation of the MAR for Directlink.

Figure 7-3 AER's draft decision on MAR compared with Directlink's proposed MAR for 2015–20 ($ million, nominal)



Source: AER analysis.

7.2 Indicative impact of transmission charges on annual electricity bills in NSW/ACT

Our draft decision on Directlink's expected MAR ultimately affects the prices consumers pay for electricity. Directlink's transmission network is a small component of the broader transmission network that serves NSW and the ACT. TransGrid is the main transmission network service provider in this region, though Ausgrid and ActewAGL also operate smaller components of the transmission network. TransGrid operates as the coordinating TNSP for NSW/ACT and collects transmission revenues for the entire region.

We therefore jointly estimate the indicative impact of our decisions for TransGrid, Directlink, Ausgrid and ActewAGL on electricity bills in NSW and the ACT.[46] This analysis is included in our draft decision on TransGrid's transmission determination, which was released at the same time as this document and is available on our website.[47]

[46] For Ausgrid and ActewAGL, only the transmission component of each decision is relevant to this assessment.

[47] AER *Draft decision, TransGrid transmission determination 2015-18*, November 2014, Overview section 7.2: http://www.aer.gov.au/node/23137.

8 Key elements of the building blocks

There is no one tool that by itself can determine an overall revenue allowance. Therefore in setting our alternative overall revenue allowance for Directlink of $76.3 million ($ nominal) for the 2015–20 regulatory control period we:

- apply relevant tests under the NER, the assessment methods and tools developed as part of our Better Regulation guidelines and consider information provided by Directlink and our consultants and internal technical advisors
- consider our total revenue allowance against section 16 of the NEL, including the constituent components and the interrelationships we discussed in section 5.

8.1 The building block approach

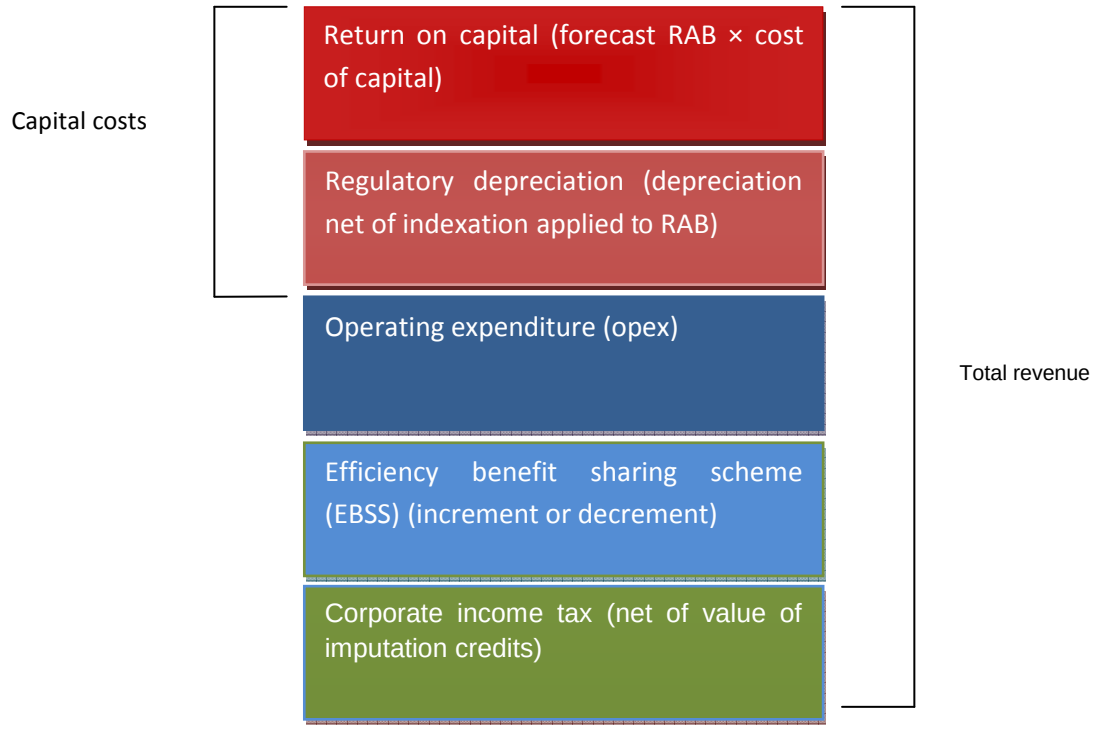
We have employed the building block approach to determine Directlink's annual revenue requirement—that is, we based the annual revenue requirements on our estimate of the efficient costs that Directlink is likely to incur in providing transmission network services. The building block costs, illustrated in Figure 8-1, include:[48]

- indexation of the RAB
- a return on the RAB (return on capital)
- depreciation of the RAB (return of capital)
- forecast opex
- increments or decrements resulting from incentive schemes such as the efficiency benefit sharing scheme (EBSS)
- the estimated cost of corporate income tax.

Our assessment of capex directly affects the size of the RAB and therefore, the revenue generated from the return on capital and return of capital building blocks.

[48] NER, cl. 6A.5.4.

Figure 8-1 The building block approach for determining total revenue



The following section summarises our decision by building block and provides our high level reasons and analysis.

8.2 Regulatory asset base

The RAB is the value of Directlink's assets that are used to provide transmission network services. These include transmission poles and wires, substations, IT systems, land and easement, motor vehicles and buildings. The RAB is the value on which Directlink earns a return on capital. Further, Directlink earns a depreciation allowance (or a return of capital) on assets in its RAB. The RAB is therefore an important input to the return on capital and depreciation building blocks, and thus to the revenue requirement.

As part of this draft decision, we are required to assess Directlink's proposed opening value for the RAB for each year of the 2015–20 regulatory control period.[49] Our assessment involved:

- rolling forward the opening RAB at 1 July 2005 to determine the closing RAB at 30 June 2015
- using our draft decision on forecasts of depreciation, capex, disposals and inflation for the 2015–20 regulatory control period to roll forward Directlink's forecast RAB for each year of that period.

8.2.1 Draft decision

Our draft decision is to set Directlink's opening RAB at $129.6 million at 1 July 2015.

We determine that the forecast depreciation approach is to be used to establish the RAB at the commencement of the regulatory control period from 1 July 2020 for Directlink.

[49] NER, cll. 6A.6.1 and schedule 6A.2.

Table 8-1 and Table 8-2 set out our draft decision on the roll forward of the RAB values for Directlink's 2005–15 regulatory control period and the forecast RAB for Directlink's 2015–20 period respectively.

Table 8-1 AER's draft decision on Directlink's RAB for the 2005–15 regulatory control period ($ million, nominal)

	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14[a]	2014–15[b]
Opening RAB	116.7	119.1	119.7	121.5	121.1	121.1	123.7	123.7	123.7	127.3
Capital expenditure[c]	2.1	0.8	–	–	–	2.2	1.7	0.7	3.8	3.1
CPI indexation on opening RAB	3.5	2.9	5.1	3.0	3.5	4.0	2.0	3.1	3.6	3.2
Straight-line depreciation[d]	–3.1	–3.2	–3.3	–3.4	–3.5	–3.6	–3.7	–3.8	–3.9	–4.0
Closing RAB	119.1	119.7	121.5	121.1	121.1	123.7	123.7	123.7	127.3	129.6
Opening RAB as at 1 July 2015										129.6

Source: AER analysis.
(a) Based on estimated capex. We will update the RAB roll forward for actual capex for the final decision.
(b) Based on estimated capex and forecast inflation. We will update the RAB roll forward for actual CPI and may update for a revised estimate of capex at the time of the final decision. However, we will update for actual capex at the next reset.
(c) As incurred, net of disposals, and adjusted for actual CPI.
(d) Based on forecast depreciation and adjusted for actual CPI.

Table 8-2 AER's draft decision on Directlink's RAB for the 2015–20 regulatory control period ($ million, nominal)

	2015–16	2016–17	2017–18	2018–19	2019–20
Opening RAB	129.6	132.4	133.4	133.8	135.1
Capital expenditure[a]	4.4	2.9	2.5	3.7	15.3
Inflation indexation on opening RAB	3.3	3.4	3.4	3.4	3.4
Straight-line depreciation	–4.9	–5.2	–5.5	–5.7	–6.0
Closing RAB	132.4	133.4	133.8	135.1	147.9

Source: AER analysis.
(a) As incurred, and net of disposals. In accordance with the timing assumptions of the post-tax revenue model (PTRM), the capex includes a half-WACC allowance to compensate for the six month period before capex is added to the RAB for revenue modelling.

8.2.2 Summary of analysis and reasons

We have determined an opening RAB value of $129.6 million ($ nominal) as at 1 July 2015 for Directlink. This is because we have corrected the 'allowed WACC' and 'forecast inflation rate' inputs in

the proposed RFM. This reduced Directlink's proposed opening RAB as at 1 July 2015 by about $0.2 million (or 0.09 per cent).[50]

We forecast Directlink's closing RAB will be $147.9 million ($ nominal) at 30 June 2020. This represents a 6.4 per cent reduction on Directlink's proposed amount. The main reasons for this reduction are our adjustments to:

- forecast capex (attachment 6)
- the opening RAB at 1 July 2015 (attachment 2)
- forecast depreciation (attachment 5).

Details of our approach to deriving the value of the RAB and relevant interrelationships are set out in attachment 2.

8.3 Rate of return (return on capital)

The allowed rate of return provides a TNSP a return on capital to service the interest on its loans and give a return on equity to investors. The return on capital building block is calculated as a product of the rate of return and the value of the regulatory asset base (RAB).[51]

8.3.1 Draft decision

We are not satisfied that Directlink's proposed (indicative) 8.06 per cent return is such that it achieves the allowed rate of return objective. We are satisfied that the allowed rate of return of 6.80 per cent (nominal vanilla[52]) we determined, subject to updating, achieves the allowed rate of return objective.[53] The allowed rate of return of 6.80 per cent will be updated annually. This is because our draft decision is to apply a trailing average portfolio approach to estimating debt which incorporates annual updating of the allowed return on debt.[54] Our draft decision is set out in Table 8-3.

Table 8-3 AER's draft decision on Directlink' rate of return (nominal)

	2006–15 AER decision	2015–20 Directlink's proposal[(a)]	2015–20 AER draft decision
Nominal risk free rate (cost of equity)	5.32%	4.30%[(b)]	3.55%[(c)]
Equity risk premium	6.0%	4.55%	4.55%
MRP	6.0%	6.5%	6.5%
Equity beta	1.0	0.7	0.7

50 At the time of the draft decision, the capex for 2013–14 and 2014–15 are estimated values. We will update the RAB roll forward for 2013–14 actual capex and revised 2013–14 estimated capex at the time of the final decision.
51 NER, cl.6A.6.2(a).
52 The nominal vanilla WACC combines a post-tax return on equity and a pre-tax return on debt, for consistency with other building blocks.
53 NER, cl.6A.6.2(b).
54 NER, cl.6A.6.2(i)(2).

	2006–15 AER decision	2015–20 Directlink's proposal[(a)]	2015–20 AER draft decision
Gearing ratio	60.0%	60.0%	60.0%
Inflation forecast	2.97%	2.50%	2.55%
Nominal post–tax return on equity	11.32%	8.9%	8.1%
Nominal pre–tax return on debt	6.32%	7.50%	5.93%
Nominal vanilla WACC	8.32%	8.06%	6.80%

Source: AER analysis; Directlink, *Revenue proposal*, May 2014; AER, *Directlink Joint Venturers' application for conversion and revenue cap: Decision*, March 2006.

(a) These values are from Directlink's proposed PTRM. Directlink has proposed to adopt the AER Guideline approach to estimating the return on equity. The difference between Directlink's proposed return on equity value and our draft decision results from different averaging periods. See: Directlink, *Revenue proposal*, May 2014, p. 35.

(b) This is a prevailing indicative risk free rate based on the averaging period used for our transitional determinations for TransGrid and TasNetworks. The risk free rate is to be updated for the final decision. See: Directlink, *Revenue proposal*, May 2014, p. 36.

(c) This is a prevailing indicative risk free rate based on a 20 business day averaging period from 17 September to 15 October 2014. The risk free rate is to be updated for the final decision.

8.3.2 Summary of analysis and reasons

Our approach

We consider that our approach, which includes a process that lends itself to capturing a broad range of material from all stakeholders while founded on the rate of return framework, would result in an estimate of the rate of return that contributes to achieving the allowed rate of return objective. Our approach is based on the rate of return framework in the NER. Under this framework, our key task is to determine an overall rate of return that we are satisfied achieves the allowed rate of return objective.[55] An important feature of the rate of return framework is the recognition that there is no one correct answer that achieves the allowed rate of return objective.[56]

Prior to the submission of this regulatory proposal, as required by the rate of return framework, in December 2013, we published the Rate of Return Guideline (Guideline).[57] The Guideline was designed through extensive consultation and included effective and inclusive consumer participation.[58] We agree with stakeholders that certainty and predictability of outcomes in rate of return issues could materially benefit the long term interest of consumers.[59]

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55 NER, cl.6A.6.2(b).

56 AEMC, *Rule determination: National electricity amendment (Economic regulation of network service providers) Rule 2012: National gas amendment (Price and revenue regulation of gas services) Rule 2012*, 29 November 2012, p. 67 (AEMC, *Final rule change determination*, November 2012); AEMC, *Final rule change determination*, November 2012, p. iv, AEMC, *Final rule change determination*, November 2012, p. 38; The High Court of NZ stated: 'In determining WACC, precision is therefore an elusive and perhaps non-existent quality. Setting WACC is, we suggest, more of an art than a science. The use of WACC, in conjunction with RAB values, to set prices and revenue in price-quality regulation gives significance to WACC estimates that may not exist outside this context.' *Wellington International Airport Ltd & Others v Commerce Commission* [2013] NZHC 3289, para. 1189.

57 NER, cl.6A.6.2(m).

58 http://www.aer.gov.au/node/18859

59 ENA, *Response to the Draft Rate of Return Guideline of the AER*, 11 October 2013, p.1, AER, *Better regulation: Explanatory statement rate of return Guideline, Appendices*, December 2013, Appendix I, Table I.4, pp.185–186.

Return on equity

Our return on equity estimate is determined by applying the iterative six step process set out in the Guideline (foundation model approach). We have had regard to a large amount of relevant information, including various equity models. At different stages of the process we have used this material to inform a return on equity estimate that contributes to the allowed rate of return objective.

The evidence indicates that the Sharpe–Lintner capital asset pricing model (SLCAPM) is the superior model in terms of estimating expected equity returns. We have therefore adopted this model as our foundation model. We commissioned expert reports from Professor Michael McKenzie and Associate professor Graham Partington, and Associate professor John Handley. Both confirm that employing our foundation model approach and using the SLCAPM as the foundation model, in the context of the vanilla WACC formula is expected to lead to a rate of return that meets the allowed rate of return objective.[60]

Our SLCAPM input parameters (MRP and equity beta) are determined after considering a range of relevant material and determining a point estimate that is most suited for our task. We evaluated our SLCAPM point estimate against other information. The critical allowance for an equity investor in a benchmark efficient entity is the allowed equity risk premium (ERP) over and above the estimated risk free rate at a given time.[61] Our estimate of the ERP for the benchmark efficient entity is 4.55 per cent. Applying the standard SLCAPM, this equals the MRP multiplied by the equity beta. Hence, we have compared ERP estimates where relevant (graphically presented in Figure 8-2). We find that our ERP estimate is within the range of other information available to inform the return on equity. Our analysis shows that:

- The Wright approach to specifying the CAPM results in an ERP range of 2.6 to 6.5 per cent. This equates to a return on equity range of 6.2 to 10.1 per cent with a prevailing risk free rate.
- ERP estimates from other market participants (independent valuers, brokers, and other regulators) for comparable firms range from 3.3 to 6.2 per cent. This equates to a return on equity range of 6.9 to 9.8 per cent with the prevailing risk free rate.
- Our SLCAPM return on equity estimate is about 2.5 per cent above the prevailing return on debt. This reflects the difference between our ERP of 4.55 per cent and the debt risk premium (DRP) on 10 year BBB bonds of approximately 2.08 per cent.[62]

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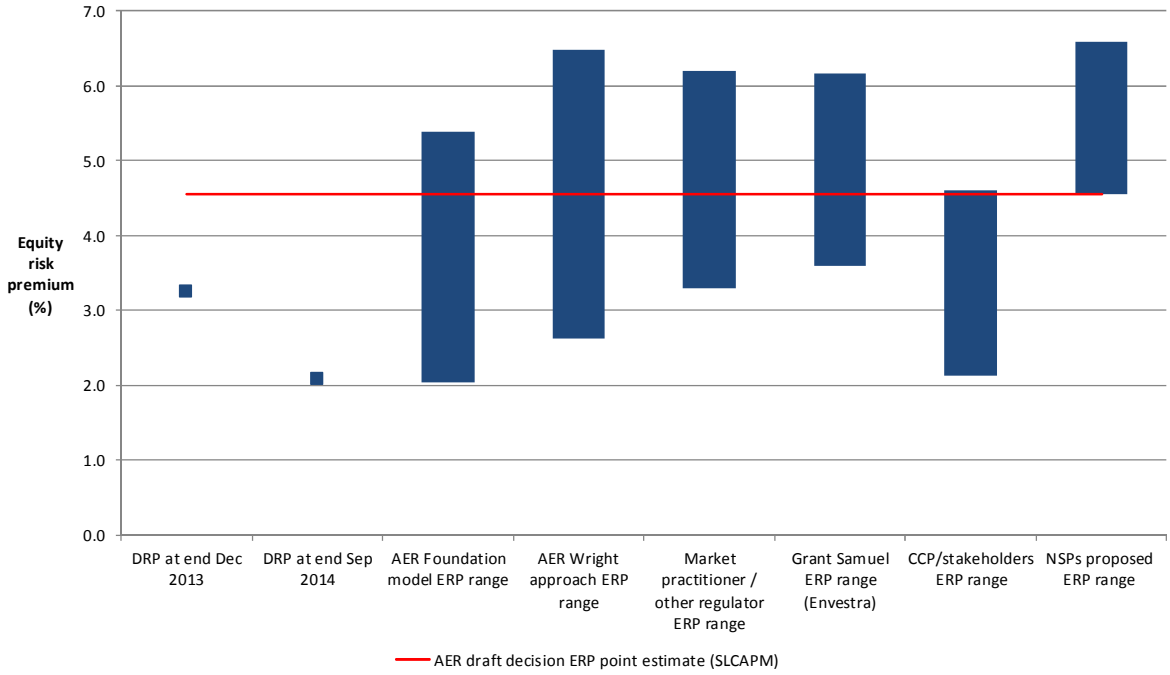
60 McKenzie & Partington, *Part A: Return on equity, Report to the AER*, October 2014, p.13; John Handley, *Advice on return on equity, Report prepared for the AER*, October 2014, p.3.

61 Our task is to determine the efficient financing costs commensurate with the risk of providing regulated network service by an efficient benchmark entity (allowed rate of return objective). Risks in this context are those which are compensated via the return on equity (systematic risks).

62 To calculate this, we use the RBA's published yields on 10 year BBB non-financial corporate bonds, specifically, the spread to CSG yields (as at 30 September 2014). These are not reflective of our draft decision return on debt estimate which is calculated as an average of the RBA and Bloomberg (BVAL) data series. We have also made an extrapolation adjustment to the RBA data series.

Figure 8-2 Other information comparisons with the AER allowed ERP



Source: AER analysis and various submissions and reports
Notes: A detailed explanation of this figure can be found in attachment 3: Rate of return.

Return on debt

Our return on debt estimate is derived by using the trailing average approach. This is a change from our approach for the current period which applied an on-the-day approach. Our return on debt estimate incorporates a transition from the current on-the-day approach to the new trailing average approach.

We assessed the trailing average approach relative to the other approaches a regulator can apply to estimate the return on debt under the rules.[63] We conclude that on balance, the trailing average approach is preferable because it may better contribute to the achievement of the allowed rate of return objective.[64] We are satisfied that a benchmark efficient entity would hold a staggered portfolio of long term (10 year) debt. By this we mean that 10 per cent of the debt is new or refinanced each year. This means that for the 2015–2020 period, the benchmark efficient entity will be issuing new debt or refinancing existing debt each year. It also means that at the start of that period, the benchmark efficient entity will have in place a portfolio of debt that is existing debt and was issued in the past. We consider it is reasonable to update 10 per cent of the benchmark efficient entity's return on debt annually going forward. Our application of the trailing average approach is based on a simple average approach that provides for 10 per cent of the benchmark efficient entity's debt portfolio to be refinanced/issued each regulatory year.

There is agreement between service providers (proposals currently before us) and us on the use of the trailing average approach and that an efficient benchmark entity would hold a staggered portfolio of long term (10 year) debt. However, there is no agreement on how we should move from the current approach to the trailing average.

63 NER, cl.6A.6.2(j).
64 NER, cl.6A.6.2(h).

We are satisfied that it is reasonable to commence the trailing average with an initial estimation of the return on debt that is then progressively updated over the period of the trailing average. For new debt that is progressively issued in the 2015–20 period and beyond, we apply the trailing average approach immediately. For existing debt that was issued before the commencement of the 2015–20 period, we continue to apply the on-the-day approach until that debt is refinanced. We update the debt portfolio by 10 per cent each year, consistent with a staggered debt portfolio with a benchmark debt term of 10 years. After 10 years, the entire debt portfolio will have been updated and incorporated into the trailing average approach, and the transition is complete. This approach is the same as the transitional arrangements we proposed in the rate of return guideline. Our transitional arrangements:

- minimises the potential mismatch between the allowed return on debt and the actual return on debt of the benchmark efficient entity as it transitions its financing practices, and
- avoids potential windfall gains or losses to service providers or consumers from changing the regulatory regime for the return on debt.

We adopt a 10 year term for the return on debt with a BBB+ credit rating. Whilst all service providers with current regulatory proposals agree with us on the term, Ausgrid, Endeavour Energy, Essential Energy, ActewAGL and JGN proposed a BBB credit rating.[65] Directlink adopted a BBB+ credit rating. We are satisfied that our benchmark efficient entity operating within Australia in gas, electricity, distribution or transmission networks face similar degrees of risk, including similar credit risks. Accordingly, we are satisfied that one benchmark credit rating should apply in our decisions for each of these sectors. Adopting a single credit rating is consistent with our adoption of a single definition of the benchmark efficient entity, and with the NER.

We use the debt yields from a third party data provider for estimating the return on debt. All service providers with current regulatory proposals have proposed to use a third party dataset for estimating the return on debt. We reviewed the data from Bloomberg (BVAL curve) and the RBA to be satisfied on the data that is most likely to reflect the efficient financing costs of a benchmark efficient entity at this time. We find that neither the RBA curve nor the BVAL curve is directly implementable in its published form for our purposes. However, we consider that both curves can be implemented in a way that will be sufficiently robust, fit for purpose and replicable, and through the automatic application of a formula, as required by the NER.[66] We are satisfied that an average of the two data series will contribute to achieving the allowed rate of return objective.

8.4 Value of imputation credits (gamma)

Under the Australian imputation tax system, investors can receive an imputation credit for income tax paid at the company level.[67] For eligible investors, this credit offsets their Australian income tax liabilities. If the amount of imputation credits received exceeds an investor's tax liability, that investor can receive a cash refund for the balance. Imputation credits are therefore a benefit to investors in addition to any cash dividend or capital gains they receive from owning shares.

In determining a service provider's revenue allowance, the rules require that the estimated cost of corporate income tax be estimated in accordance with a formula that reduces the estimated cost by

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65 Ausgrid, *Regulatory proposal*, May 2014, pp. 70–71; Endeavour Energy, *Regulatory proposal*, May 2014, pp. 104–105; Essential Energy, *Regulatory proposal*, May 2014, pp. 90–92; ActewAGL, *Regulatory proposal*, 2 June 2014 (resubmitted 10 July 2014), p. 255; JGN, *Access arrangement information*, 30 June 2014, p. 9.

66 NER clause 6.5.2(l), NER clause 6A.6.2(l), NGR r. 87(12).

67 *Income Tax Assessment Act 1997*, parts 3–6.

the 'value of imputation credits'.[68] That is, the revenue allowance granted to a service provider to cover its expected tax liability must be reduced in a manner consistent with the value of imputation credits.

8.4.1 Draft decision

We do not accept Directlink's proposed value of imputation credits of 0.25. Instead, we adopt a value of imputation credits of 0.4.

The value we adopt is lower than the value of 0.5 proposed in the rate of return guideline. Although we have broadly maintained the approach to determining the value of imputation credits set out in the guideline, we have re-examined the relevant evidence and estimates. This re-examination, and new evidence and advice considered since the guideline, led us to depart from the value in the guideline.

8.4.2 Summary of analysis and reasons

Estimating the value of imputation credits is a complex and imprecise task. There is no consensus among experts on the appropriate value or estimation techniques to use.

Consistent with the relevant academic literature, we estimate the value of imputation credits as the product of the distribution rate and the utilisation rate. While there is a widely accepted approach to estimating the distribution rate, there is no single accepted approach to estimating the utilisation rate and there is a range of evidence relevant to the utilisation rate. This includes:

- The proportion of Australian equity held by domestic investors (the 'equity ownership approach')—this approach reflects that domestic investors are typically able to use imputation credits to reduce their tax liability or redeem for cash, whereas foreign investors cannot.
- The reported value of credits used by investors in Australian Taxation Office (ATO) statistics ('tax statistics')—this approach reflects that the ATO maintains records of the amount of imputation credits claimed by investors in their tax returns.
- Implied market value studies—while there is no separate market in which imputation credits are traded, and therefore there is no observable market price for imputation credits, this approach reflects that the value of imputation credits can be inferred from the change in market prices of financial instruments which trade with and without imputation credits attached.

In estimating the utilisation rate, we place:

- significant reliance upon the equity ownership approach
- some reliance upon tax statistics, and
- less reliance upon implied market value studies.

The relative importance that we assign to each approach is supported by advice received from Associate professor John Handley of the University of Melbourne and Associate professor Martin Lally of Victoria University of Wellington.[69]

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[68] NER, cl. 6.4.3(a)(4), 6.4.3(b)(4), 6.5.3, 6A.5.4(a)(4), 6A.5.4(b)(4) and 6A.6.4; NGR, rr. 76(c) and 87A.

[69] J. Handley, *Report prepared for the Australian Energy Regulator: Advice on the value of imputation credits*, 29 September 2014; M. Lally, *The estimation of gamma*, 23 November 2013, p. 4.

Overall, the evidence on the distribution rate and the utilisation rate suggests that a reasonable estimate of the value of imputation credits is within the range 0.3 to 0.5. From within this range, we choose a value of 0.4. This is because:

- The balance of evidence from the equity ownership approach, on which we have placed the most reliance, suggests a value between 0.4 and 0.5.
- The evidence from tax statistics suggests the value could be lower than 0.4. Therefore we choose a value at the lower end of the range suggested by the balance of evidence from the equity ownership approach (that is, 0.4).
- A value of 0.4 is reasonable in light of the evidence from implied market value studies and the lesser degree of reliance we place upon these studies.

In determining the value of imputation credits, we considered the wide range of evidence before us with regard to its merits. We consider that a value of imputation credits of 0.4 is reasonable because:

- It is within the range of values indicated by the evidence, and the relevance of the evidence is supported by expert opinion.
- It primarily reflects an estimate of the utilisation rate from the equity ownership approach. Handley considered this the most important approach to estimating the utilisation rate, relative to the alternatives of tax statistics and implied market value studies.[70] The equity ownership approach was Lally's second preference after his recommendation for a utilisation rate of 1.[71]
- It is within the 'preferred' range for the value of imputation credits in Handley's recent advice.[72]
- Based on the evidence before us at this time, adopting a value of imputation credits that is rounded to one decimal place appropriately reflects the uncertainty and imprecision associated with this parameter. This uncertainty is evident in the range of views and values espoused by experts. The imprecision of determining the value of imputation credits was emphasised by Handley.[73]

8.5 Regulatory depreciation (return of capital)

We use regulatory depreciation to model the nominal asset values over the 2015–20 regulatory control period and set the depreciation allowance as part of the overall revenue allowance for Directlink. The regulatory depreciation allowance (or return of capital) is the net total of the straight-line depreciation (negative) amount and the (positive) amount from indexation of the RAB.

We have to decide on whether to approve the depreciation schedules submitted by Directlink setting out its proposed allowance. If we do not approve Directlink's depreciation schedules we must determine alternative depreciation schedules to apply to Directlink as set out in the NER.[74]

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70 J. Handley, *Report prepared for the Australian Energy Regulator: Advice on the value of imputation credits*, 29 September 2014, p.31.

71 M. Lally, *The estimation of gamma*, 23 November 2013, p. 4. Lally's recommendation of a utilisation rate of 1 is based on his consideration that, because we use a domestic rate of return framework, we should assume that all investors in the market are domestic (and therefore eligible to make full use of imputation credits).

72 J. Handley, *Report prepared for the Australian Energy Regulator: Advice on the value of imputation credits*, 29 September 2014, p.3.

73 J. Handley, *Report prepared for the Australian Energy Regulator: Advice on the value of imputation credits*, 29 September 2014, p.32.

74 NER, cl. 6A.6.3(b)

8.5.1 Draft decision

Our draft decision is to determine alternative depreciation schedules, and hence, the depreciation allowance, to apply to Directlink.[75] Table 8-4 sets out our draft decision on Directlink's depreciation allowance for the 2015–20 regulatory control period. Our draft decision sets the allowance at $10.5 million ($ nominal), a reduction of 5.4 per cent from Directlink's proposal.

Table 8-4 AER's draft decision on Directlink's depreciation allowance for the 2015–20 regulatory control period ($ million, nominal)

	2015–16	2016–17	2017–18	2018–19	2019–20	Total
Straight-line depreciation	4.9	5.2	5.5	5.7	6.0	27.4
Less: inflation indexation on opening RAB	3.3	3.4	3.4	3.4	3.4	16.9
Regulatory depreciation	1.6	1.9	2.1	2.3	2.6	10.5

Source: AER analysis.

8.5.2 Summary of analysis and reasons

We do not accept Directlink's proposed regulatory depreciation allowance of $11.1 million ($ nominal) for the 2015–20 regulatory control period. Instead, we determine a regulatory depreciation allowance of $10.5 million ($ nominal) for Directlink, a reduction of $0.6 million (or 5.4 per cent) from the proposal. Our amendment reflects our determinations on other components of Directlink's proposal that affect the forecast regulatory depreciation allowance—for example, the forecast capital expenditure (capex) (attachment 6) and the opening RAB value (attachment 2).

Details of our approach in deriving the value of the regulatory depreciation allowance and relevant interrelationships are set out in attachment 5.

8.6 Capital expenditure (capex)

Capex refers to the capital expenses incurred in the provision of network services. The return on and of forecast capex are two of the building blocks we use to determine a TNSP's total revenue requirement.

8.6.1 Draft decision

Our draft decision is to not accept Directlink's proposed total capex forecast of $35.19 million ($ 2014-15) for the 2015-20 regulatory control period because we are not satisfied that it reasonably reflects the capex criteria. Our substitute estimate of the total forecast capex that reasonably reflects the capex criteria is $25.3 million, as set out in Table 8.5. This is a reduction of 27 per cent, from Directlink's proposal.

Table 8.5 Our draft decision on Directlink's total forecast capex ($ million 2014–15)

	2015–16	2016–17	2017–18	2018–19	2019-2020	Total
Directlink's proposal	5.86	5.41	4.03	5.10	14.80	35.20

[75] NER, cl. 6A.6.3(b)

	2015–16	2016–17	2017–18	2018–19	2019-2020	Total
AER draft decision	4.16	2.68	2.26	3.28	13.25	25.63
Difference	1.70	2.73	1.77	1.82	1.55	9.57
Percentage difference	29.0	50.4	43.9	35.7	10.5	27.2

Source: AER analysis

8.6.2 Summary of analysis and reasons

Both Directlink's proposal and our substitute estimate of total forecast capex are based on a list of projects Directlink identified in its proposal as likely be required in the 2015-20 regulatory control period. We assessed the need and likely efficient cost of the same list of projects to test Directlink's proposal. Having found as a result that the proposal did not satisfy the capex criteria, we also used them to develop our substitute estimate.

Based on an engineering review we made adjustments to the expenditure forecast for a number of proposed projects to:

- reflect lower cost estimates for some projects than those included in Directlink's proposal
- adjust the scope of Directlink's proposed program of works to reflect improvements in performance expected to result from its past and forecast expenditure
- remove from our substitute estimate of forecast capex those projects for which a need (in the 2015-20 regulatory control period) had not been demonstrated.

Lastly, our estimate corrects for a $1.57 million discrepancy between Directlink's total forecast capex and its detailed proposal.

8.7 Operating expenditure (opex)

Opex includes forecast operating, maintenance and other non-capital costs incurred in the provision of transmission network services. It includes labour costs and other non-capital costs that Directlink is likely to require during the 2015–20 regulatory control period for the efficient operation of its network.

8.7.1 Draft decision

We are not satisfied that Directlink's total forecast opex reasonably reflects the opex criteria. Our substitute estimate of the total forecast opex Directlink will require over the 2015-20 regulatory control period is $16.7 million ($2014–15). This is around 37 per cent lower than Directlink's forecast. Table 8-6 shows our draft decision compared to Directlink's total forecast opex.

Table 8-6 AER's draft decision and Directlink's proposed total opex ($ million, 2014–15)

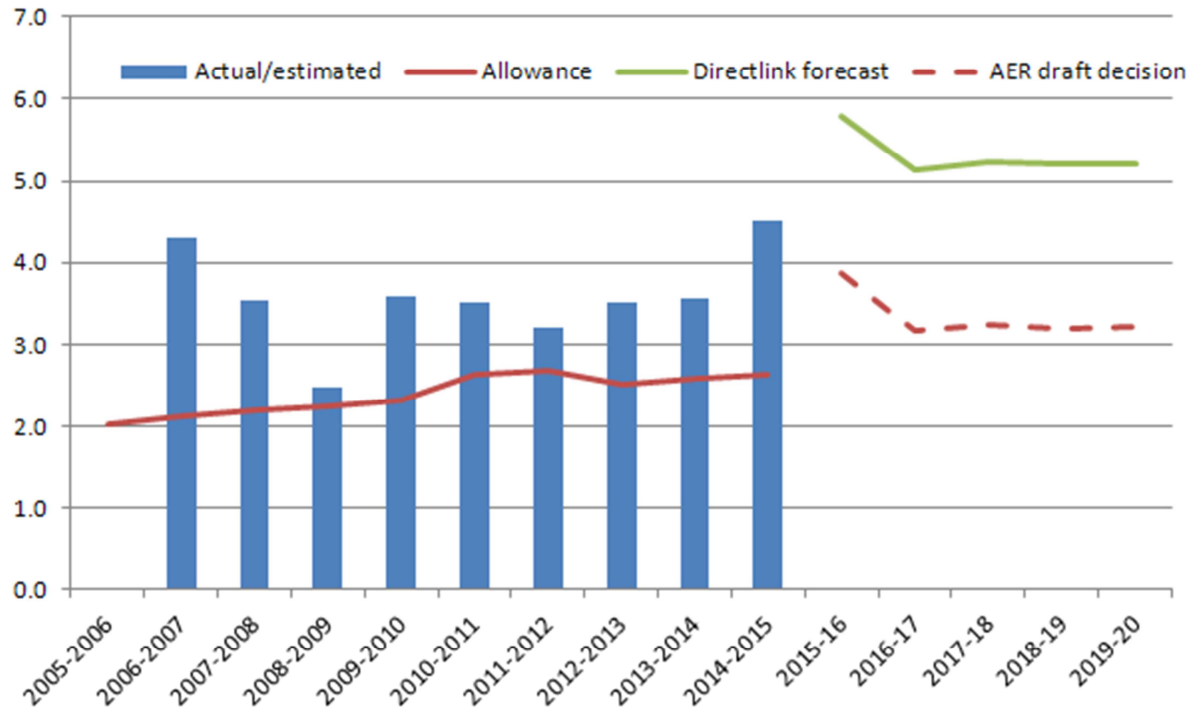
	2015–16	2016–17	2017–18	2018–19	2019-20	Total
Directlink's proposal	5.8	5.1	5.2	5.2	5.2	26.5
AER draft decision	3.9	3.2	3.2	3.2	3.2	16.7

	2015–16	2016–17	2017–18	2018–19	2019-20	Total
Difference ($million)	1.9	2.0	2.0	2.0	2.0	9.9
Difference (%)	-33.2%	-38.4%	-38.0%	-38.6%	-38.3%	-37.2%

Source: Directlink, proposal; AER analysis.

Figure 8-3 shows our draft decision compared to Directlink's proposal, its past allowances and past actual expenditure.

Figure 8-3 AER draft decision compared to Directlink's past and proposed opex ($million, 2014-15)



Source: AER analysis.

8.7.2 Summary of analysis and reasons

We are not satisfied that Directlink's proposed total forecast opex reasonably reflects the opex criteria. We reached this conclusion after undertaking a bottom-up assessment of Directlink's opex requirement for 2015-20 to estimate the efficient opex a prudent operator of the Directlink interconnecter would require to achieve the opex objectives. When compared to the resulting estimate, Directlink's proposal is materially higher. Our detailed analysis of Directlink's proposed opex is set out in attachment 7.

The key areas of difference between our substitute estimate of total opex and Directlink's proposed total forecast opex are:

- Operating and maintenance expenditure. Application of our assumptions in place of Directlink's accounts for $3.6 million (2013–14) of the difference between Directlink's proposed opex and our estimate. In particular, we consider Directlink is likely to require less opex than it has proposed for cable repairs, staff positions and phase reactor maintenance.

- Insurance expenditure. We do not agree with a number of the assumptions Directlink applied in estimating its proposed insurance costs, which we consider result in a biased forecast. Application of our assumptions and allocation method in place of Directlink's accounts for $4.5 million (2013–14) of the difference between Directlink's proposed opex and our estimate. In particular, some of the proposed insurance costs do not appear to reflect the capex and opex proposed by Directlink which is intended to reduce the risks associated with the Directlink asset to pre-fire levels.
- The magnitude of the margin. Application of our calculated margin in place of Directlink's accounts for $0.9 million (2013–14) of the difference between Directlink's proposed opex and our estimate. APA Operations receives a 10 per cent margin on all costs. The difference reflects the reduction in the margin received due to reductions we have made in operating and maintenance, insurance, commercial services fee and other costs.
- Commercial services fee cost allocation. Application of our allocation method in place of Directlink's accounts for $0.8 million (2013–14) of the difference between Directlink's proposed opex and our estimate. We have allocated the fixed commercial services fee on the basis of the EII revenues in 2012-13, which is the latest actual revenue information available.

8.8 Corporate income tax

The estimated cost of corporate income tax contributes to our determination of the total revenue cap for Directlink over the 2015–20 regulatory control period. An allowance for corporate income tax enables Directlink to recover the costs associated with the estimated corporate income tax payable during that period. Attachment 8 sets out our detailed reasons for our draft decision on Directlink's estimated cost of corporate income tax.

8.8.1 Draft decision

We do not accept Directlink's proposed cost of corporate income tax allowance of $4.4 million ($ nominal) for the 2015–20 regulatory control period. Instead, we determine a cost of corporate income tax allowance of $2.7 million ($ nominal). Table 8-7 sets out our draft decision on Directlink's corporate income tax allowance for the 2015–20 regulatory control period. Our draft decision is 38.6 per cent less than the allowance Directlink proposed.

Table 8-7 AER's draft decision on Directlink's cost of corporate income tax allowance for the 2015–20 regulatory control period ($ million, nominal)

	2015–16	2016–17	2017–18	2018–19	2019–20	Total
Tax payable	0.8	0.9	0.9	0.9	1.0	4.5
Less: value of imputation credits	0.3	0.3	0.4	0.4	0.4	1.8
Net corporate income tax allowance	0.5	0.5	0.5	0.6	0.6	2.7

Source: AER analysis.

8.8.2 Summary of analysis and reasons

Our draft decision reflects our amendment to the value of imputation credits (gamma) as discussed in attachment 4, which is a key input to calculating Directlink's cost of corporate income tax.[76] Our draft decision reflects changes to other building block components that affect revenues also impact the tax calculation.

Details of our approach in deriving the value of the corporate income tax allowance and relevant interrelationships are set out in attachment 8.

[76] NER, clause 6A.6.4.

9 Incentive schemes

9.1 Efficiency benefit sharing scheme (EBSS)

The 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. Conversely, if it overspends its allowed opex, it cannot seek to recover this. This is supplemented by the EBSS which provides the service provider with an additional reward for reductions in opex it makes and additional penalties for increases in opex. In total these rewards and penalties work together to provide a constant incentive for a service provider to pursue efficiency gains over the regulatory control period. The EBSS also discourages a service provider from overspending its opex allowance in what it expects to be the base year for the following regulatory control period in order to receive a higher opex allowance in that period.

9.1.1 Draft decision

Directlink was not subject to the EBSS during the 2005–15 regulatory control period. We propose to apply version 2 of the EBSS to Directlink during the 2015–20 regulatory control period. We consider the EBSS is needed to:

- to encourage Directlink to pursue efficiency improvements in opex, and
- to discourage Directlink from incurring opex to try and influence its opex forecasts in the regulatory control period beginning in 2020.

Attachment 9 sets out our detailed reasons for our draft decision on the EBSS.

9.2 Capital expenditure sharing scheme (CESS)

The CESS provides financial rewards for network service providers whose capex becomes more efficient and financial penalties for those that become less efficient. Consumers benefit from improved efficiency through lower regulated prices.

As part of the Better Regulation program we consulted on and published the capital expenditure incentive guideline, which sets out version 1 of the CESS. The CESS approximates efficiency gains and efficiency losses by calculating the difference between forecast and actual capex. It shares these gains or losses between service providers and consumers.

Under the CESS a service provider retains 30 per cent of the benefit or cost of an underspend or overspend, while consumers retain 70 per cent of the benefit or cost of an underspend or overspend. This means that for a one dollar saving in capex the service provider keeps 30 cents of the benefit while consumers keep 70 cents of the benefit. Conversely, in the case of an overspend the service provider must bear 30 cents of the cost and consumers 70 cents.

9.2.1 Draft decision

We will apply version 1 of the CESS, as set out in the capital expenditure incentives guideline, to Directlink in the 2015–20 regulatory control period.

9.3 Service target performance incentive scheme (STPIS)

The STPIS has three components:

- The service component provides a financial incentive for the TNSP to improve and maintain its service performance.
- The market impact component provides an incentive to TNSPs to minimise the impact of transmission outages that can affect the NEM spot price.

The network capability component, which does not apply to Directlink[77], funds and incentivises a TNSP to identify incremental changes that would improve the capability of the network when it is most needed. Attachment 11 sets out detailed reasons for our draft decision on the STPIS.

9.3.1 Draft decision

The service component and the market impact component of version 4.1 of the STPIS will apply to Directlink for the 2015–20 regulatory control period.

Service component

We do not accept Directlink's proposed performance targets.

We have approved a significant increase in total capital allowance for Directlink. As such, we do not consider it is reasonable to simply set the performance targets equal to Directlink's average performance history over the past five years without adjustment. We have observed a clear downward trend in cable faults since 2010, which is likely to be the result of Directlink's new cable repair strategy. We adjusted Directlink's performance target for "circuit outage rate – fault" sub-parameter based on the trend analysis. This also resulted in adjustment to the proposed cap and collar for this sub-parameter.

We set the performance targets for the other sub-parameters based on the historical average performance without adjustment as we have not observed any increasing trend. We applied our principles based approach to set the caps and collars for these sub-parameters. This is consistent with the approach that we applied to SP AusNet in 2013 and is a conceptually sound method.

Table 11.1 of Attachment 11 sets out our draft decision on Directlink's service component parameter values.

Market impact component

We are not required to determine a market impact parameter performance target because it will be set annually as a rolling average during the 2015–20 regulatory control period. Under version 4.1 of the STPIS, Directlink's market impact parameter performance target for the 2015 calendar year, for example, will be an average of Directlink's market impact performance for the years ending 11 August 2010, 11 August 2011 and 11 August 2012.

However, considering we have completed our audit of Directlink's performance for the years ending 11 August 2010, 11 August 2011 and 11 August 2012, we averaged the performance over those three years to calculate Directlink's 2015 performance target. We revised Directlink's performance for the year ending 11 August 2010 from 2949 to 2836 dispatch intervals, its performance for the year

[77] TNSP Service target performance incentive scheme, Version 4.1, cl. 2.2.

ending 11 August 2011 from 1030 to 1017 dispatch intervals and its performance for the year ending 11 August 2012 from 365.5 to 375 dispatch intervals. Consequently, Directlink's market impact parameter performance target for 2015 is 1409 dispatch intervals.

The reasons for these adjustments are set out in Table 11.5 of Attachment 11.

10 Consumer engagement

AER's views on effectiveness of Directlink's consumer engagement

The AEMC intended that the AER have regard to the nature of consumer engagement undertaken and the outcomes of that engagement in considering the proposals put to it by network service providers.[78] In preparing its revenue proposal for 2015-20, it appears Directlink made little effort to engage with consumers. Directlink's proposal includes a description of its attempt to engage with electricity consumers. However, its proposal, and Directlink's explanation of its proposed opex and capex forecasts in particular, does not provide any evidence of actual engagement.

We acknowledge that the services Directlink provides are different to that of other TNSPs. We do not consider they are so different that consumer engagement is not required or beneficial to the development of Directlink's proposal. Directlink does not have directly connected customers, but its operation does impact on the services provided by TransGrid in NSW and Powerlink in Queensland. Its allowed revenue has a lesser impact on the prices that end users of electricity pay, but is nonetheless recovered from customers. It is difficult to conclude that, by its limited attempt to engage consumers, Directlink has genuinely sought to identify and address any concerns that may have been raised.

AER consumer engagement guideline for service providers

To assist service providers, we developed a consumer engagement guideline for network service providers.[79] Our consumer engagement guideline centres on best practice principles which seek to drive consumer engagement and a commitment from service providers to continuously improve engagement across all business operations. Our guideline is not prescriptive but rather places the onus on service providers to develop consumer engagement strategies and activities that best suit their business. Service providers can do this most appropriately because they are in the best position to understand their consumer base and its issues.

We acknowledge that our consumer engagement guideline has only been in effect since November 2013. Therefore, most network service providers' consumer engagement strategies are reflective of the consumer engagement approaches they already had in place. Since the release of the guideline, most service providers have made steps to improve and implement a consumer engagement strategy in line with our guideline to support their proposals. We encourage all service providers to continue in this positive direction. We also recommend that service providers review stakeholder and Consumer Challenge Panel submissions and consult with them on how their consumer engagement strategies can be improved to provide ongoing and genuine engagement and demonstrate how stakeholder input has shaped future proposals and broader business decisions.

Ultimately, we expect service providers to undertake systematic, consistent and strategic engagement with consumers on issues significant to both parties. As set out in our consumer engagement guideline, we have considered how the service provider equipped consumers to participate in consultation, made issues tangible to consumers, obtained a cross section of views and considered and responded to consumer views.

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[78] AEMC, *Rule Determination National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2012, National Gas Amendment (Price and Revenue Regulation of Gas Services) Rule 2012*, p. 36.

[79] AER, *Consumer engagement guideline for network service providers*, November 2013.

Equipped consumers to participate in consultation and made issues tangible to consumers

On 8 April 2014, two months before it was required to submit its revenue proposal, Directlink contacted all stakeholders who had made submissions in response to our consultation on the Guideline and AER Stakeholder engagement workshop. It invited those stakeholders to join a consumer engagement workshop in Sydney on 28 April 2014, and offered the alternative of an individual discussion with Directlink's regulatory manager.[80]

Directlink's workshop invitation[81] attached a short document providing background information on the Directlink interconnector, its regulatory history and the impact of its 2014/15 revenue requirement on the total cost of the Queensland and NSW transmission network (which it estimated as 0.8 per cent). It did not, however, include information about Directlink's revenue proposal or its planned operating or capital expenditure for 2015-20.[82]

Directlink cancelled its proposed workshop two weeks later because "so few were able to attend"[83]. Invitees were offered the alternative of an individual discussion with Directlink's regulatory manager.[84] We are not aware of, and Directlink's proposal does not note or reference, any such discussions. This appears to have been the extent of Directlink's consumer engagement.

Obtained, considered and responded to a cross section of stakeholder views

Directlink approached stakeholders on the basis that they or their organisation lodged a submission to our 2013 consultation on the *Consumer Engagement Guideline for Network Service Providers* or *AER Stakeholder Engagement Framework*.[85] The approach was made by email directly to the parties[86] rather than through a wider, open invitation. When it cancelled its proposed workshop, Directlink contacted the same group of stakeholders—again by direct email—to offer individual discussions.[87]

It is not apparent from Directlink's proposal whether, following cancellation of the proposed workshop, views from these or any other stakeholders were actively sought, or actually obtained. Directlink's proposal notes the opportunities it provided for stakeholders to offer views, but does not confirm what views, if any, were raised or considered in developing and finalising its proposal. We are left to conclude that Directlink's proposal was not prepared with the benefit of consumer engagement, and may or may not reflect consumer preferences.

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80 Directlink Revenue Proposal, p. 15; Email from Directlink to AER and others: Directlink Interconnector – Consumer engagement initiative, 8 April 2014.
81 Email from Directlink to AER and others: Directlink Interconnector – Consumer engagement initiative, 8 April 2014.
82 Directlink, *About the Directlink Interconnector: consumer engagement information document*, April 2014.
83 Directlink Revenue Proposal, p. 15
84 Directlink Revenue Proposal, p. 15; Email from Directlink to AER and others: RE: Directlink Interconnector – Consumer engagement initiative, 17 April 2014.
85 Directlink Revenue Proposal, p. 15; Email from Directlink to AER and others: Directlink Interconnector – Consumer engagement initiative, 8 April 2014.
86 Directlink Revenue Proposal, p. 15; Email from Directlink to AER and others: Directlink Interconnector – Consumer engagement initiative, 8 April 2014.
87 Email from Directlink to AER and others: RE: Directlink Interconnector – Consumer engagement initiative, 17 April 2014.

11 Next steps

Regulatory proposal and AER draft decision

Directlink may submit a revised regulatory proposal in response to our draft decision.[88] Directlink must submit the revised regulatory proposal to us within 30 business days of publication of our draft decision.[89] We must invite written submissions on the draft decision once we publish that decision, a notice of the making of that draft decision, and a notice of a predetermination conference.[90] Any person may attend the predetermination conference and make a written submission on our draft decision. The due date for written submissions must not be earlier than 30 business days after the holding of the pre-determination conference.[91]

After considering submissions made on the draft decision and any revised revenue proposal, we must make a final decision and transmission determination.[92] Key dates for our assessment process are set out in table 11-1.

Table 11-1 Key dates for our assessment process

Task	Date
Directlink's regulatory proposal submitted to AER	2 June 2014
Published regulatory proposal and supporting documents	20 June 2014
AER public forum	10 July 2014
Stakeholder submissions on regulatory proposal close	8 August 2014
AER issues draft decision	27 November 2014
Directlink submits revised regulatory proposal	13 January 2015*
Stakeholder submissions on draft decision close	6 February 2015
AER issues final decision	April 2015

88 NER, cl. 6A.12.3.
89 NER, cll. 6A.12.3(a), 11.58.4(n).
90 NER, cll. 6A.12.2(a) and (b).
91 NER, cll. 6A.12.2(c), 11.58.4(n).
92 NER, cl. 6A.13.1.

Appendix A – Constituent components

Our draft decision includes the following constituent components:[93]

Constituent component
In accordance with clause 6A.14.1(i) of the NER, the AER has not approved the total revenue cap set out in Directlink's building block proposal. Our draft decision on Directlink's total revenue cap over the 2015-20 regulatory control period is $76.3 million ($ nominal). This decision is discussed in Attachment 1 of this draft decision.
In accordance with clause 6A.14.1(ii) of the NER, the AER has not approved the maximum allowed revenue for each regulatory year of the regulatory control period set out in Directlink's building block proposal. Our draft decision on Directlink's maximum allowed revenue (MAR) for each year of the 2015–20 period is set out in Attachment 1 of this draft decision.
In accordance with clause 6A.14.1(1)(iii) of the NER, the AER has decided to apply the service component and market impact component of Version 4.1 of the service target performance incentive scheme (STPIS) to Directlink for the 2015–20 regulatory control period. The values and parameters of the STPIS are set out in Attachment 11 of this draft decision.
In accordance with clause 6A.14.1(1)(iv), the AER's decision on the values that are to be attributed to the parameters for the efficiency benefit sharing scheme (EBSS) that will apply to Directlink in respect of the 2015–20 regulatory control period are set out in Attachment 9 of this draft decision.
In accordance with clause 6A.14.1(1)(v) of the NER, the AER has approved the commencement and length of the regulatory control period proposed by Directlink. The regulatory control period will commence on 1 July 2015 and the length of this period is five years from 1 July 2015 to 30 June 2020.
In accordance with clause 6A.14.1(2) and acting in accordance with clause 6A.6.7(d), the AER has not accepted Directlink's total forecast capital expenditure of $35.19 million ($2014–15). Our substitute estimate of Directlink's total forecast capex for the 2015–20 period is $25.63 million ($2014–15). This is discussed in Attachment 6 of this draft decision.
In accordance with clause 6A.14.1(3) and acting in accordance with clause 6A.6.6(d), the AER has not accepted Directlink's total forecast operating expenditure of $26.5 million ($2014–15). Our substitute estimate of Directlink's total forecast opex for the 2015–20 period is $16.7 million ($2014–15). This is discussed in Attachment 7 of this draft decision.
Directlink did not propose any contingent projects for the 2015–20 regulatory control period. In accordance with clause 6A.14.1(4)(i) the AER has determined that there are no contingent projects for the purposes of the revenue determination and therefore in accordance with clause 6A.14.1(4)(iii) does not specify any trigger events.
In accordance with clause 6A.14.1(5A), the AER has determined that version 1 of the capital expenditure sharing scheme (CESS) as set out in version 1 of the capital expenditure incentives guideline will apply to Directlink in the 2015–20 regulatory control period. This is discussed in Attachment 10 of this draft decision.
In accordance with clause 6A.14.1(5B) the AER has decided that the allowed rate or return for the first regulatory year of the regulatory control period in accordance with clause 6A.6.2 is 6.80 per cent (nominal vanilla), as set out in Attachment 3 of the draft decision. This rate of return will be updated annually because our decision is to apply a trailing average portfolio approach to estimating debt which incorporates annual updating of the allowed return on debt.
In accordance with clause 6A.14.1(5D) the AER has decided that the value of imputation credits as referred to in clause 6A.6.4 is 0.4. This is set out in Attachment 4 of this draft decision.

[93] NEL, s. 16(1)(c)

Constituent component
In accordance with clause 6A.14.1(5E) the AER has decided, in accordance with clause 6A.6.1 and schedule 6A.2, that the regulatory asset base (RAB) as at the commencement of the regulatory control period is $129.6 million at 1 July 2015. This is set out in Attachment 2 of this draft decision.
In accordance with clause 6A.14.1(5F) the AER has decided that that the forecast depreciation approach is to be used to establish the RAB at the commencement of Directlink's regulatory control period (1 July 2020). This is discussed in Attachment 2 of this draft decision.
In accordance with clause 6A.14.1(6) the AER has approved Directlink's proposed negotiating framework.
In accordance with clause 6A.14.1(7) the AER has specified the negotiated transmission services criteria for Directlink in Attachment 12 of this draft decision .
In accordance with clause 6A.14.1(8) the AER has not approved Directlink's pricing methodology for the 2015–20 regulatory control period. This is discussed in Attachment 12 of this draft decision.
In accordance with clause 6A.14.1(9) the AER has not approved the additional pass through events Directlink proposed would apply in accordance with clause 6A.6.9. We do not accept the following proposed pass through events: ▪ insurer's credit risk event ▪ carbon cost event. We have proposed substitute definitions for the following three events should Directlink seek to address this in its revised proposal: ▪ insurance cap event ▪ terrorism event ▪ natural disaster event. This is set out in Attachment 13 of this draft decision.

Appendix B – Better Regulation Guidelines

The guidelines which we applied in assessing Directlink's regulatory proposal are summarised below.

Forecasting efficient expenditure

Our Better Regulation expenditure forecast assessment guideline sets out how we assess a business' revenue proposal and how we determine a substitute forecast when required. Businesses must provide economic analysis to justify the efficiency and prudency of their expenditure proposals. In the absence of economic justification we are unlikely to accept their forecast expenditure.

Our general approach is to assess the efficiency of a network business and determine whether previous spending is an appropriate starting point. If there is evidence of inefficiency we will use benchmarks that reflect efficient costs.

To assess a business's revenue proposal, we apply a range of techniques that typically involve comparing the proposal to estimates we develop from relevant information sources. Where these techniques indicate the expenditures are not efficient, we will set our own efficient forecast. These techniques include:

- economic benchmarking—productivity measures used to assess a business's efficiency overall
- category level analysis—comparing how well a business delivers services for a range of individual activities and functions, including over time and with its peers
- predictive modelling—statistical analysis to predict future spending needs, currently used to assess the need for upgrades or replacement as demand changes (augmentation capex, or augex) and expenditure needed to replace aging assets (replacement capex, or repex)
- trend analysis—forecasting future expenditure based on historical information, particularly useful for opex where spending is largely recurrent and predictable
- cost benefit analysis—assessing whether the business has chosen spending options that reflect the best value for money
- project review—a detailed engineering examination of specific proposed projects or programs
- methodology review—examining processes, assumptions, inputs and models that the business used to develop its proposal
- governance and policy review—examining the business's strategic planning, risk management, asset management and prioritisation.

The expenditure assessment guideline also sets out our principles for guiding our reliance on assessment techniques and a business forecasting approach. These include validity, accuracy and reliability, parsimony, robustness, transparency and fitness for purpose.

In the remainder of this section we explain how as part of our determinations we also calculate the rewards and penalties for past performance under our expenditure incentive schemes. In addition, we explain how we combine our approach to incentives with our forecasting approach to ensure consumers will pay no more than necessary for a safe and reliable energy supply.

Forecasting and reviewing capital expenditure

During a determination we assess the business' past capex and future capex needs. We:

- assess the business' proposed forecast of the total capex it needs to spend over the next period
- update the business' RAB to include the capex it spent in the past during the period, excluding any inefficient capex overspend[94]
- calculate the rewards and penalties the business will receive under the capital expenditure sharing scheme (CESS) for capex underspends or overspends it incurred during the period.

We assess the business' total capex forecast by considering the efficiency of the proposed expenditure. Our assessment of the total forecast capex can be informed by indicators of overall network performance and risk. We utilise a range of tools to inform that consideration. We have developed a new tool to better forecast the expenditure needed to build, upgrade or replace network assets to address changes in demand (augmentation capex, or augex). This complements our existing tool that examines the expenditure needed to replace aging assets (replacement capex, or repex). We also consider capex forecasts associated with connections and other customer driven work, non-network capex (for example, IT equipment) and the capitalisation of overhead costs.

We will use our capex forecasting techniques to review what the business spent on capex during the period. The capital expenditure incentives guideline sets out our staged process for this ex post review. If a business' capex exceeds what was forecast, we will examine their spending. If we determine all or some of the overspending was inefficient, the business may not be allowed to add the excess spending to its RAB.[95]

The CESS rewards or penalties apply automatically to capex underspends or overspends. However, we may adjust the CESS payments to account for:

- Our ex post review—if the business has overspent and we decide under the ex post review to exclude all or some of the overspend from the RAB we will adjust the CESS payments. Otherwise a business could bear more than 100 per cent of the cost of the excluded capex.
- Capex deferrals—a business may have decided to spend capex at a later time than it had previously planned. We refer to this as capex deferral, and a business may defer capex from one regulatory period into the next. We will adjust the CESS payments where a material proportion of capex is deferred. This means consumers will share in the benefits where material amounts of capex are deferred from one regulatory control period to the next. This also helps deter businesses from deferring capex between regulatory control periods unless it is efficient to do so. When assessing forecast capex we will also consider deferrals and the rewards or penalties under the CESS.

Forecasting and reviewing operating expenditure

During a determination we assess the business' past opex and future opex needs. We:

- assess the business' proposed forecast of the total opex it needs to spend over the next period

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94 Under transitional rules no ex post adjustments have been made in this determination, See NER, schedule 6A.2.2A, cl. 11.58.5.

95 We cannot exclude inefficient capex overspends if a business spent the capex prior to 2014, but this timing differs slightly for different businesses.

- calculate the rewards and penalties (carryover amounts) the business will receive under the EBSS for opex performance during the period.

We forecast opex using the approach outlined in our Expenditure Forecast Assessment Guideline. Under this approach opex is based on an efficient amount of actual expenditure in a single year (known as 'base opex'), which is multiplied by a forecast rate of change for each year of the forecast period. We then add any step changes for efficient costs that are not captured by the base opex or the rate of change.

We prefer to asses base opex using the service providers revealed expenditure in a single year. If revealed expenditure in the base year reasonably reflects the opex criteria, we will set base opex equal to that revealed expenditure. We use a combination of techniques to assess whether base opex is efficient. If we find base opex to be materially inefficient, we either adjust the base year or substitute an appropriate base year. When determining whether to adjust or substitute base year expenditure, we have regard to whether rewards or penalties accrued under the EBSS will fairly share efficiency gains or losses between the service provider and its customers.

We then apply an annual rate of change to base opex to forecast opex for each year of the forecast regulatory control period. The rate of change captures changes in forecast:

- output
- prices
- productivity.

We then add or subtract step changes for any other expenditure not captured in base opex or the rate of change that is required for forecast opex to meet the opex criteria. Step changes should not double count cost included in other elements of the opex forecast: If it is efficient to substitute capex with opex, a step change may be included for these costs (capex/opex trade-offs).

Determining the allowed rate of return

The allowed rate of return is the forecast of the cost of funds a network business requires to attract investment in the network. To estimate this cost, we consider the cost of the two sources of funds for investments—equity and debt. The return on equity is the return shareholders of the business will require for them to continue to invest. The return on debt is the interest rate the network business pays when it borrows money to invest. We consider that efficient network businesses would fund their investments by borrowing 60 per cent of the required funds, while raising the remaining 40 per cent from equity.

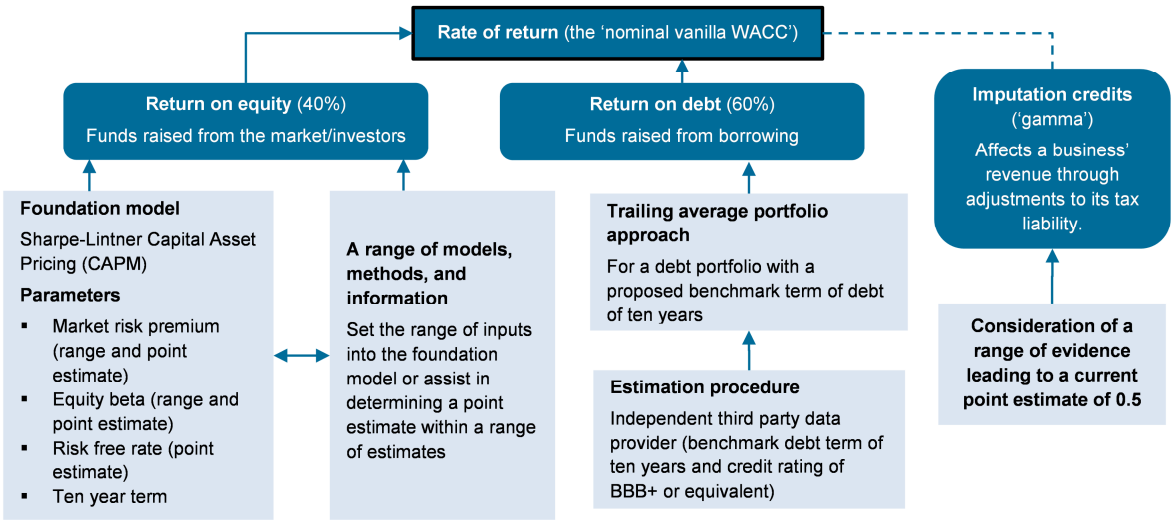
A good estimate of the rate of return is necessary to promote efficient prices in the long term interests of consumers. If the rate of return is set too low, the network business may not be able to attract sufficient funds to be able to make the required investments in the network and reliability may decline. On the flip side, if the rate of return of return is set too high, the network business may seek to spend too much and consumers will pay inefficiently high prices.

The return on investment can make up approximately 50 per cent of revenue needs for network businesses. Our aim is to set a rate of return that delivers sufficient but not excessive returns to support investment in safe and reliable energy networks. The value of the business' capex investments in its RAB is multiplied by the allowed rate of return to determine the total return on

capital the network business can charge energy consumers. So we also aim to set a rate of return that enables business to make efficient choices between capex and opex.

The estimation method set out in our rate of return guideline is shown in Figure 4.

Figure B.1 Better Regulation rate of return guideline estimation method overview



The benchmark efficient business

We estimate the returns on equity and debt for a benchmark efficient business. This approach supports the rate of return objective in the rules—for the overall rate of return to correspond to the efficient financing costs of a benchmark efficient business. By setting a rate of return based on a benchmark, rather than the actual costs of individual businesses, network businesses have incentives to finance their business as efficiently as possible.

We define the benchmark efficient business as one who only provides regulated electricity or gas network services, operating within Australia. This applies to both electricity and gas as the risks across both industries are sufficiently similar such that a single benchmark is appropriate.

Return on equity

Our approach to the return on equity balances providing predictability for investors and consumers while incorporating the latest market data. Recognising there is not one perfect model to estimate the return on equity, our approach draws on a variety of models and information.

Our starting point is the standard Capital Asset Pricing model (CAPM)—our 'foundation model.' We then use a range of models, methods, and information to inform our return on equity estimate. We use this information to either set the range of inputs into the CAPM foundation model or assist in determining a point estimate within a range of estimates at the overall return on equity level.

Return on debt

Our approach to the return on debt closely aligns with the efficient debt financing practices of regulated businesses. Our approach is to consider the average interest rate that a network business would face if it raised debt annually in ten equal parcels. This is referred to as the trailing average portfolio approach. This approach assumes that every year, one-tenth of the debt of a network

business is re-financed. As the return on debt is an average of the interest rates over a period of ten years, this approach leads to a relatively stable estimate over time.

Shared asset guideline

The shared asset guideline sets out our approach to sharing the benefits with consumers when a network business is paid for providing unregulated services. We will reduce the amount that business can recover from electricity consumers to reflect the unregulated revenues.

Network businesses have the opportunity to propose alternative approaches. However, we will be unlikely to accept alternatives if they leave consumers worse off than under our approach in the guideline.

The guideline sets out how we reduce consumer costs for shared assets:

- Materiality: we will take action when the unregulated revenues from shared assets are more than 1 per cent of a service provider's total annual revenue
- Method: we will reduce a service provider's regulated revenues by around 10% of the value of unregulated revenues earned from shared assets
- Information reporting: what we'll require from service providers to determine shared asset cost reductions.

Our shared asset mechanism forecasts the annual unregulated revenue that a network business is expected to earn from shared assets.

This forecast is then compared to the revenue that is required to provide regulated services. If the total unregulated revenue is expected to be greater than 1 per cent of the regulated revenue, we will apply a cost reduction.

This clear and transparent materiality threshold balances administrative effort with potential consumer benefits.

The cost reduction will reduce a network business' regulated revenue by 10 per cent of the value of its expected total unregulated revenues from shared assets in that year. This reduces the amount to be recovered from consumers and consequently electricity prices.

The potential value of the cost reduction is capped by the electricity rules, so that the reduction cannot exceed the regulated revenue from those assets.

Consumer engagement guideline for network service providers

The consumer engagement guideline for network service providers sets out a framework for electricity and gas service providers to better engage with consumers. The guideline aims to help these businesses develop strategies to engage systematically, consistently and strategically with consumers on issues that are significant to both parties.

We expect each service provider to develop consumer engagement approaches and strategies that address the best practice principles and the four components of the guideline that are explained below.

Implementing the guideline will help service providers demonstrate how their spending proposals contribute to the objectives contained in the national electricity and gas laws. That is, that their spending proposals promote efficient investment in, and efficient operation and use of, energy services for the long term interests of energy consumers.

Service providers must describe how they have engaged with consumers, and how they have sought to address any relevant concerns identified as a result of that engagement. Service providers present this information in an overview report to their regulatory or revenue proposals.

Underpinning the guideline are four best practice principles. They overarch all aspects of consumer engagement, so service providers should use these principles in undertaking each component of the guideline:

- Clear, accurate and timely communication—we expect service providers to provide information to consumers that is clear, accurate, relevant and timely, recognising the different communication needs and wants of consumers.
- Accessible and inclusive—we expect service providers to recognise, understand and involve consumers early and throughout the business activity or expenditure process.
- Transparent—we expect service providers to clearly identify and explain the role of consumers in the engagement process, and to consult with consumers on information and feedback processes.
- Measurable—we expect service providers to measure the success, or otherwise, of their engagement activities.

The guideline is structured around four components. The components set out a process for service providers to develop and implement new or improved consumer engagement activities to meet the best practice principles:

- Priorities—we expect service providers to identify consumer cohorts, and the current views of those cohorts and their service provider; outline their engagement objectives; and discuss the processes to best achieve those objectives.
- Delivery—we expect service providers to address the identified priorities via robust and thorough consumer engagement.
- Results—we expect service providers to articulate the outcomes of their consumer engagement processes and how they measure the success of those processes reporting back to us, their business and consumers
- Evaluation and review—we expect service providers to periodically evaluate and review the effectiveness of their consumer engagement processes.