FINAL DECISION
Directlink transmission determination 2015–16 to 2019–20

Overview

April 2015

AUSTRALIAN ENERGY REGULATOR

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Note

This overview forms part of the AER's final decision on Directlink's transmission determination for 2015–20. It should be read with other parts of the final decision.

The final 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

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Shortened forms

Shortened form	Extended form
AARR	aggregate annual revenue requirement
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
ASRR	annual service revenue requirement
augex	augmentation expenditure
capex	capital expenditure
CCP	Consumer Challenge Panel
CESS	capital expenditure sharing scheme
CPI	consumer price index
DMIA	demand management innovation allowance
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
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

Shortened form	Extended form
RPP	revenue and pricing principles
SLCAPM	Sharpe-Lintner capital asset pricing model
STPIS	service target performance incentive scheme
TNSP	transmission network service provider
TUoS	transmission use of system
WACC	weighted average cost of capital

1 Our final decision

The Australian Energy Regulator (AER) is responsible for the economic regulation of electricity transmission and distribution systems in all states and territories except Western Australian and the Northern Territory. Directlink is the transmission network service provider (TNSP) operating the high voltage electricity interconnector that links the New South Wales (NSW) and Queensland transmission networks. We regulate the revenues Directlink can recover from customers.

The National Electricity Law (NEL) and National Electricity Rules (NER) provide the regulatory framework under which we operate. Most relevantly, they set out how we must assess a revenue proposal and make our decision.

The National Electricity Objective (NEO) sits at the centre of the NEL and NER. 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: [1]

- Price, quality, safety, reliability and security of supply of electricity; and
- The reliability, safety and security of the national electricity system.

Under the NER, Directlink must submit a revenue proposal, pricing methodology and negotiating framework to us for approval.[2] The central component of a revenue proposal is the amount of revenue Directlink proposes to recover from consumers over the 2015–20 regulatory control period.[3] We must assess Directlink's proposal, using the NER's detailed rules. The NER address a range of constituent components of a revenue proposal. We must decide whether to accept Directlink's proposal. If we do not accept that Directlink's proposal complies with the requirements of the NER, we must substitute an alternative amount of revenue that we are satisfied does comply. We must undertake this assessment and make this decision in a manner that will or is likely to contribute to the achievement of the NEO and, where appropriate, contribute to the greatest degree.

We regulate Directlink's revenue, not its costs. Directlink must then decide how best to use this revenue in providing transmission services and fulfilling its obligations. This provides incentives for TNSPs, such as Directlink, to operate their businesses efficiently and, in the long run, at least cost to consumers. It also provides incentives for TNSPs to innovate and invest in response to changes in consumer needs and productive opportunities.[4] This is consistent with economic efficiency principles. It also means that the person who is best able to manage a risk generally carries that risk.

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1 NEL, s. 7.
2 NER, cl. 6A.10.1.
3 NER, cll. 6A.4.2, 6A.5.4, 6A.10.1.
4 Hansard, SA House of Assembly, 9 February 2005 p. 1452

Directlink submitted its proposal to us in June 2014. In November 2014 we made a draft decision and, in January 2015, Directlink submitted a revised proposal. We also received submissions from various stakeholders on Directlink's revised proposal and our draft decision.

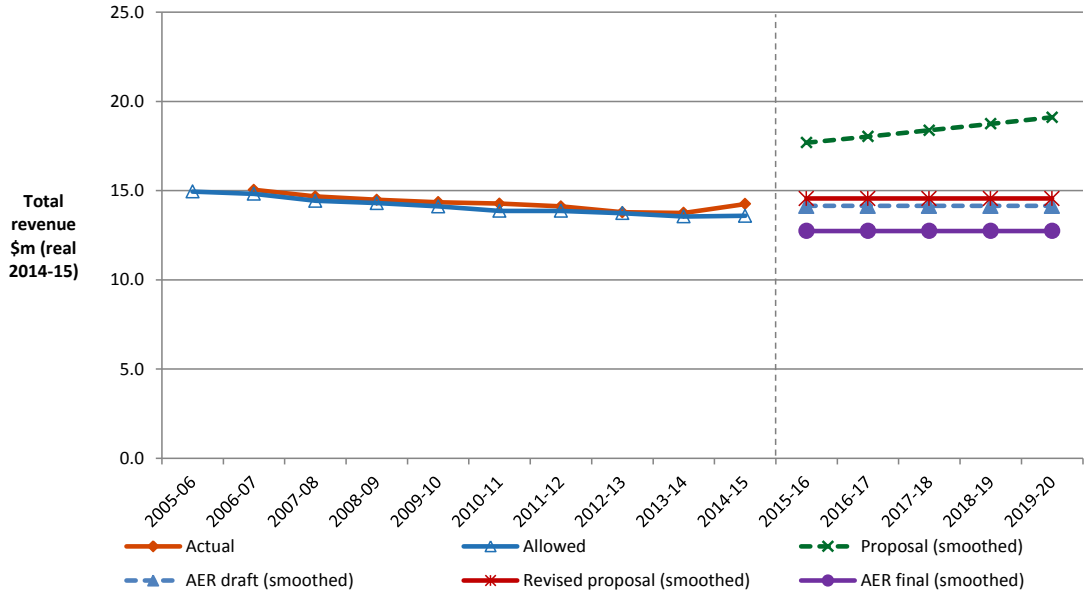
This overview, together with its Attachments, constitutes our final decision on Directlink's revised proposal. This overview provides a summary of our decision, including all the constituent components that make up our final decision. It sets out the issues we covered, the conclusions we made, and how those conclusions were reached. We also explain why we are satisfied our decision contributes to the achievement of the NEO to the greatest degree and why we do not consider that Directlink's revised proposal contributes to the achievement of the NEO to a satisfactory degree. In our Attachments we set out detailed analysis of the constituent components that make up Directlink's revised proposal and our decision on each of them. There is a full list of the constituent components of this decision in Appendix A.

1.1 Decision

Our final decision is that Directlink can recover $68.7 million ($ nominal) from consumers[5] over the 2015–20 regulatory control period. Figure 1 below illustrates our overall decision.

[5] Directlink's transmission charges are recovered by TransGrid as the coordinating TNSP for NSW. We provide an estimated impact of our final decisions for NSW transmission assets on average electricity bills in our final decision on TransGrid's transmission determination, which was released at the same time as this decision: http://www.aer.gov.au/node/23137

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



Source: AER analysis.

1.2 Contribution to achievement of the NEO

We are satisfied that the total revenue approved in our final decision contributes to the achievement of the NEO to the greatest degree. This is because our total revenue reflects the efficient, sustainable costs of providing network services in Directlink's operating environment, and the key drivers of efficient costs facing Directlink. For the reasons set out below and in our Attachments, we consider our decision will promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers, as required by the NEO.

The key drivers of costs facing a network service provider are:[6]

- its accumulated network investment (reflected in the size of its Regulatory Asset Base (RAB))
- its expected growth in network investment (reflected in its capital expenditure (capex) program net of capital returned to the shareholders through depreciation)
- its financing costs (interest on borrowings and a return on equity to shareholders)
- its operating expenditure (opex) program (the cost of operating and maintaining its network)

[6] How these key cost drivers impact total revenue is further explained in section 2 of this Overview

- its taxation cost (taxable income at the corporate tax rate adjusted for the value of imputation credits).

From one regulatory control period to the next, the pressures on each of these drivers may change. For example, in periods of high demand growth, a service provider would expect to need a larger capex program. Similarly, during periods of high interest rates, a service provider would expect to pay more in financing costs.

The most important factors we see impacting on Directlink's costs in the 2015–20 regulatory control period include:

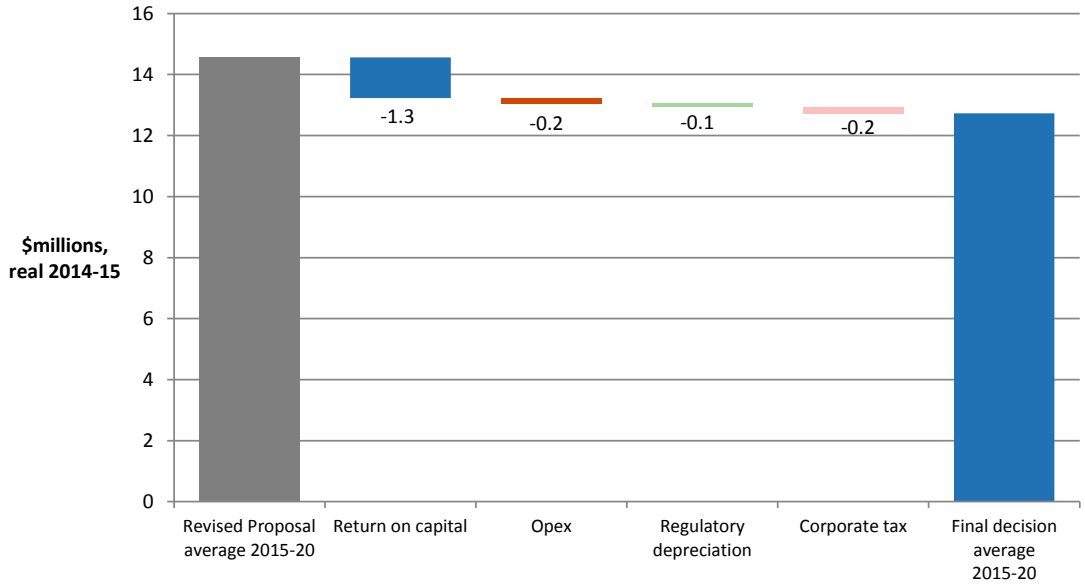
- an improved investment environment, which translates to lower financing costs necessary to attract efficient investment.
- higher than expected capex in the 2006-15 regulatory control period, including as a result of a fire at the Mullumbimby converter station in 2012
- a reassessment of risk and opex and capex requirements following events in the 2006-15 period, including the 2012 fire.

These factors are reflected throughout our final decision and impact the different constituent components of our decision to varying degrees. At the total revenue level, they provide a consistent picture: a prudent and efficient operator of Directlink's network—with efficient costs and realistic expectations of demand and cost inputs—would need materially less revenue than Directlink has proposed for the 2015–20 regulatory control period.

In our final decision we consider that Directlink's proposal does not reflect the factors impacting on its cost drivers to a satisfactory extent. As a consequence, we also consider that Directlink has proposed to recover more revenue from customers than is necessary for the safe and reliable operation of its network. It follows that we consider that Directlink's revised proposal does not contribute to the achievement of the NEO to a satisfactory degree.

The constituent decision that has the greatest impact on the total revenue allowance is rate of return. We discuss this further below. Figure 2 illustrates the key differences (in terms of constituent components, or building blocks, making up total revenue) between our decision and Directlink's revised proposal.

Figure 2 AER's final decision on building block costs ($ million 2014–15)



Source: AER analysis.

1.2.1 Rate of return

The rate of return provides a service provider with revenue to service the interest on its borrowings and to give a return on equity to shareholders. The allowed rate of return is usually a key determinant of allowed revenue.

The rate of return must be commensurate with the efficient financing costs of a benchmark efficient entity with a similar degree of risk as that which applies to the TNSP in respect of the provision of transmission services.[7] The NER refers to this requirement as the Allowed Rate of Return Objective.

Our final decision is for a rate of return of 5.45 per cent compared to 6.17 per cent[8] put forward by Directlink in its revised proposal.[9]

We set out our approach to determining the rate of return in the Rate of Return Guideline (Guideline) we published in December 2013.[10] This Guideline is not binding.

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7 NER, 6A.5.2(b)

8 The rate of return that Directlink included in its proposal is an indicative value. Its proposal includes provision for the AER to adjust this value based on updated information that was not available when Directlink submitted its revised proposal.

9 The difference in these two rates understates the degree of difference between our and Directlink's positions. This is because the return on debt component of Directlink's proposal was based on a placeholder estimate that did not fully reflect Directlink's proposed underlying methodology. Replacing this placeholder with an estimate that more closely reflects Directlink's proposed methodology results in a proposed rate of return of 7.80 per cent. This is based on a return on debt of 8 per cent. See: Directlink, *Initial revenue proposal—Attachment 6.1*, p.6.

10 AER, Rate of Return Guideline, December 2013: http://www.aer.gov.au/node/18859.

However, a TNSP must provide reasons to justify any departure from the Guideline. Directlink has adopted the Guideline approach for the return on equity. However, Directlink has proposed we depart from the Guideline for the return on debt. We are not satisfied that there are sufficient grounds to justify doing so.

Prevailing market conditions for debt and equity heavily influence the rate of return. In our draft decision we pointed out that financial conditions have improved markedly since our last decision for Directlink, resulting in a lower rate of return. Since our draft decision, interest rates have fallen further and financial market conditions have continued to ease. This means that the cost of debt and the returns required to attract equity are lower than when we made our draft decision. We consider these factors should be reflected in the final rate of return.

On a more technical level, the key difference between our final decision and Directlink's revised proposal in relation to the rate of return is whether to use a forwards or backwards looking approach in transitioning between approaches to setting our estimate of the return on debt.

The Guideline (and indeed, this decision) marks a departure from our previous approach to estimating the return on debt. We have used a gradual, forward looking transition to do so. We set out this transition in the Guideline. Our approach to setting the return on debt received broad support from many stakeholders, including some service providers.[11] The evidence we have received does not convince us that we should depart from the approach in our Guideline for this final decision.[12]

1.3 Assessment of options under the NEO

The NER recognises that there may be several decisions that contribute to the achievement of the NEO. Our role is to make a decision that we are satisfied contributes to the achievement of the NEO to the *greatest* degree.[13]

For at least two reasons, we consider that there will almost always be several potential decisions that might contribute to the achievement of the NEO. First, the NER requires us to make forecasts, which are predictions about unknown future circumstances. As a result, there will likely always be more than one plausible forecast. Second, there is substantial debate amongst stakeholders about the costs we must forecast, with both sides often supported by expert opinion. As a result, for several components of our decision there may be several plausible answers or several point estimates within a range. This has the potential to create a multitude of potential overall decisions. In this decision we have approached this from a practical perspective accepting that it is not possible to consider every possible permutation specifically. Where there are several plausible answers, we have selected what we are satisfied is the best outcome, under the NEL and NER.

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11 For example, TasNetworks, Revenue Proposal, June 2014.

12 See Attachment 3 - Rate of Return.

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

In many cases, our approach results in an outcome towards the end of the range of options materially favourable to Directlink (for example, our choice of equity beta). While it can be difficult to quantify the exact revenue impact of these individual decisions, we have identified where we have done so in our Attachments. Some of these decisions include:

- selecting at the top of the range for the equity beta
- setting the return on debt by reference to data for a BBB broad band credit rating, when the benchmark is BBB+
- the cash flow timing assumptions in the post-tax revenue model (PTRM).

We set out our detailed reasons in the Attachments. They demonstrate that the constituent components of our decision comply with the NER's requirements. At an overall level our decision reflects the key reasons set out above, which indicate that Directlink should recover less revenue from customers than it has proposed. Our decision reflects these at both the constituent component and overall revenue levels.

Given our approach, we are satisfied that our decision will or is likely to contribute to the achievement of the NEO to the greatest degree.

1.4 Structure of the overview

The remainder of this overview is structured as follows:

- Section 2 sets out the key constituent components making up our final decision
- Section 3 sets out our decision on the incentive schemes that will apply to Directlink
- Section 4 explains our views on the regulatory framework
- Section 5 outlines the process we undertook in reaching our final decision.

2 Key elements of the building blocks

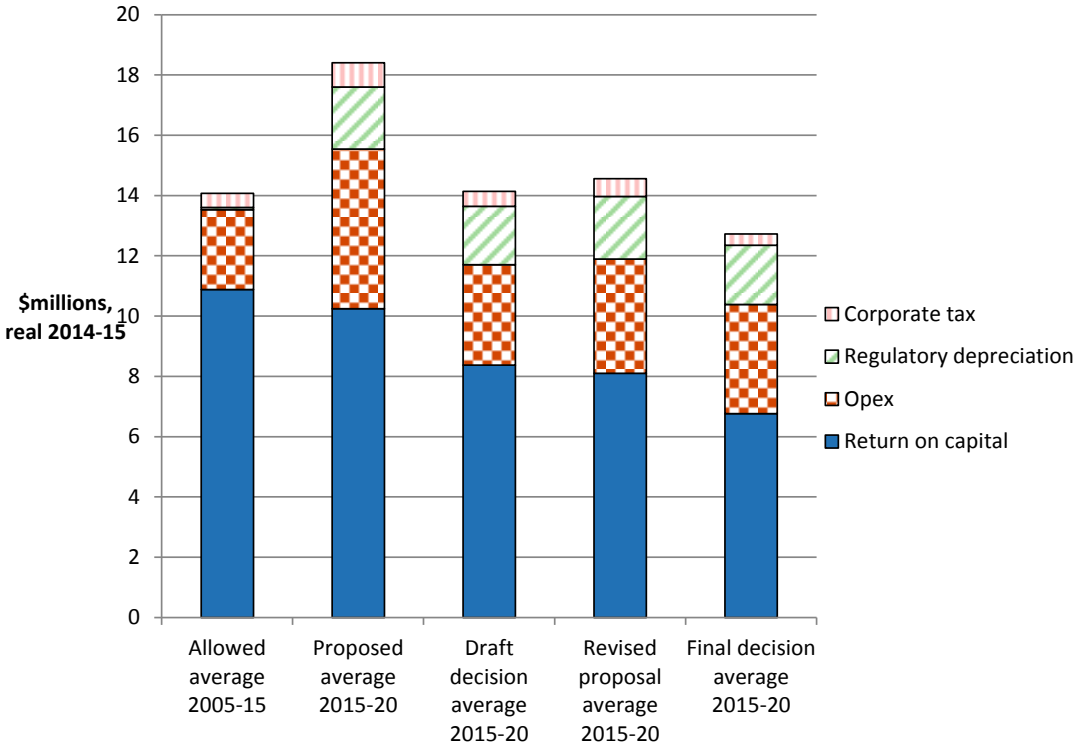
The constituent components of our decision include the building blocks we use to determine the revenue Directlink may recover from its customers.[14]

In setting our overall revenue for Directlink of $68.7 million ($ 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[15] (see section 5.1). We also consider information provided by Directlink, our consultants and stakeholder submissions.
- consider our forecast revenue against section 16 of the NEL, including the constituent components and the interrelationships we discussed in sections 1 and 4.

Figure 3 and Table 1 show our final decision on Directlink's revenues and the contribution of each building block.

Figure 3 AER's final decision and Directlink's proposed annual building block costs ($ million, 2014–15)



Source: AER analysis.

[14] NER, cl. 6A.3.

[15] http://www.aer.gov.au/Better-regulation.

Table 1 AER's final decision on Directlink's revenues ($ million, nominal)

	2015–16	2016–17	2017–18	2018–19	2019-20	Total
Return on capital	7.1	7.4	7.4	7.3	7.4	36.5
Regulatory depreciation[a]	1.7	1.9	2.1	2.4	2.6	10.7
Operating expenditure	4.3	3.6	3.8	3.8	4.0	19.5
Net tax allowance	0.3	0.4	0.4	0.4	0.5	2.1
Annual building block revenue requirement (unsmoothed)	13.3	13.3	13.7	14.0	14.4	68.7
Annual expected MAR (smoothed)	**13.1**	**13.4**	**13.7**	**14.1**	**14.4**	**68.7**
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 10.1 per cent lower than the approved MAR ($14.2 million, nominal) in the final year of the 2005–15 regulatory control period (2014–15) in real terms, or 7.8 per cent lower in nominal terms.

(c) The X factor will be revised to reflect the annual return on debt update.

2.1 The building block approach

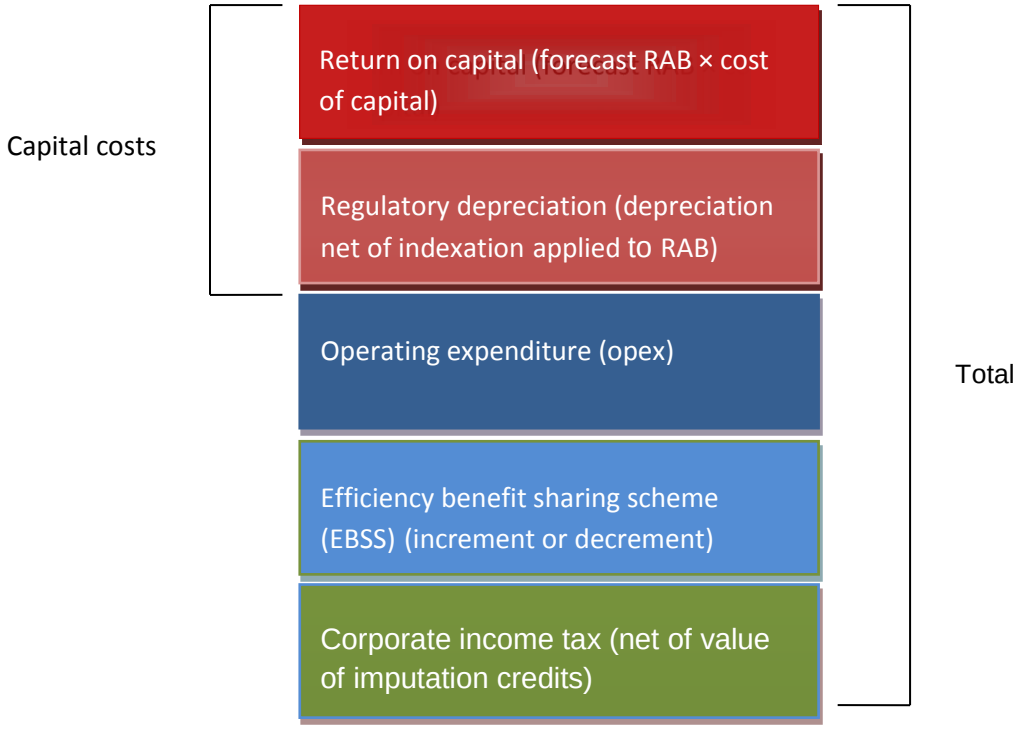
We have employed the building block approach to determine Directlink's annual revenue requirement. The building block costs, illustrated in Figure 4 include:[16]

- 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.

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

Figure 4 The building block approach for determining total revenue



The following section summarises our decision in relation to each building block and provides our high level reasons and analysis. The Attachments provide a more detailed explanation of our analysis and findings.

2.2 Regulatory asset base (RAB)

The RAB is the value of Directlink's assets that are used to provide transmission network services. It is the value on which Directlink earns a return on capital, and a depreciation allowance (or a return of capital). We are required to assess Directlink's proposed opening value for the RAB for each year of the 2015–20 regulatory control period.[17]

Our final decision is to set Directlink's opening RAB at $129.4 million at 1 July 2015. We forecast a closing RAB at 30 June 2020 of $148.6 million.

The forecast depreciation approach will be used to establish Directlink's RAB at the commencement of the following regulatory control period on 1 July 2020.

Table 2 and Table 3 set out our final decision on the roll forward of the RAB values for Directlink's 2005–15 regulatory control period and the forecast RAB values for Directlink's 2015–20 regulatory control period respectively.

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

Table 2 AER's final 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	2014–15[a]
Opening RAB	116.7	119.2	119.7	121.5	121.1	121.1	123.7	123.7	123.7	127.1
Capital expenditure[b]	2.1	0.9	–	–	–	2.2	1.7	0.7	3.7	4.6
CPI indexation on opening RAB	3.5	2.9	5.1	3.0	3.5	4.0	2.0	3.1	3.6	1.7
Straight-line depreciation[c]	–3.1	–3.2	–3.3	–3.4	–3.5	–3.6	–3.7	–3.8	–3.9	–4.0
Closing RAB	119.2	119.7	121.5	121.1	121.1	123.7	123.7	123.7	127.1	129.4
Opening RAB as at 1 July 2015										129.4

Source: AER analysis.

(a) Based on revised estimated capex and actual inflation. We will update for actual capex at the next reset.

(b) As incurred, net of disposals, and adjusted for actual CPI.

(c) Based on forecast depreciation and adjusted for actual CPI.

Table 3 AER's final 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	129.4	135.1	1364.9	134.8	135.5
Capital expenditure[a]	7.3	1.7	2.1	3.0	15.8
Inflation indexation on opening RAB	3.3	3.4	3.4	3.4	3.5
Straight-line depreciation	–5.0	–5.4	–5.6	–5.8	–6.1
Closing RAB	135.1	134.9	134.8	135.5	148.6

Source: AER analysis.

(a) As incurred, and net of disposals. In accordance with the timing assumptions of the 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.

We roll forward the opening RAB at 1 July 2005 to determine the closing RAB at 30 June 2015. Our opening RAB value of $129.4 million as at 1 July 2015[18] is $1.5 million (or 1.2 per cent) lower than the $131.0 million in Directlink's revised proposal. This is

[18] This RAB value is based on as-incurred capex.

because we have updated the RAB roll forward for the recent availability of the 2014–15 actual inflation input.

We used our 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. Our forecast closing RAB for Directlink at 30 June 2020 is $148.6 million ($ nominal), which represents a reduction of around 8.9 per cent from Directlink's revised proposal 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 final decision on the value of the RAB are set out in Attachment 2.

2.3 Rate of return (return on capital)

The return on capital provides a service provider with revenue to service the interest on its borrowings and to give a return on equity to shareholders. This building block is calculated as a product of the rate of return and the value of the RAB.[19]

The NER sets out that the rate of return must be commensurate with the efficient financing costs of a benchmark efficient entity with a similar degree of risk as that which applies to the TNSP in respect of the provision of transmission services.[20] The NER refer to this requirement as the Allowed Rate of Return Objective.

We have determined an allowed rate of return of 5.45 per cent (nominal vanilla)[21], subject to updating. We have not accepted Directlink's proposed 6.17 per cent return.[22] In accordance with the Guideline we will update the rate of return annually, consistent with Directlink's revised proposal and our approach to the return on debt.[23] Table 4 sets out the parameters we have used to determine the rate of return.

Table 4 AER's final decision on Directlink's rate of return (nominal)

	AER decision 2006–15	Directlink's revised proposal 2015–20	AER final decision 2015–16	AER final decision 2016–20
Nominal risk free rate (return on equity)(a)	5.32%	2.90%	2.55%	2.55%

19 NER, cl. 6A.6.2(a).

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

21 The nominal vanilla rate of return formula combines a post-tax return on equity and pre-tax return on debt, for consistency with other building blocks.

22 The rate of return that Directlink included in its proposal is an indicative value. Its proposal includes provision for the AER to adjust this value based on updated information that was not available when Directlink submitted its revised proposal.

23 NER, cl. 6A.6.2(j)(2).

	AER decision 2006–15	Directlink's revised proposal 2015–20	AER final decision 2015–16	AER final decision 2016–20
Equity risk premium	6.00%	4.55%	4.55%	4.55%
MRP	6.00%	6.50%	6.50%	6.50%
Equity beta	1.0	0.7	0.7	0.7
Nominal post–tax return on equity	11.32%	7.45%	7.1%	7.1%
Nominal pre–tax return on debt	6.32%	5.28%	4.35%	Updated annually(b)
Gearing	60%	60%	60%	60%
Nominal vanilla WACC	8.32%	6.17%	5.45%	Updated annually(b)
Forecast inflation	2.97%	2.55%	2.55%	2.55%

Source: AER analysis; Directlink, Revised regulatory proposal, January 2015; AER, Decision: Directlink Joint Venture's application for conversion and revenue cap, March 2006.

(a) Directlink's revised proposal risk free rate estimate was based on an averaging period of the last 10 business days of December 2014. AER final decision risk free rate estimate is based on a 20 business day averaging period from 9 February to 6 March 2015.

(b) The allowed return on debt is to be updated annually and the nominal vanilla WACC will be updated annually to reflect the allowed return on debt. The allowed return on debt for 2015–16 has already been estimated. Return on debt allowances for subsequent years will be estimated based on the formula set out in Attachment 3, Appendix I.

Our approach

All NER requirements relating to the rate of return are subject to the overall rate of return achieving the Allowed Rate of Return Objective.[24] The NER recognise that there are several plausible answers that could achieve the Allowed Rate of Return

[24] NER, cl. 6A.6.2(b).

Objective.[25] We agree with stakeholders that predictability of outcomes in rate of return issues could materially benefit the long term interest of consumers.[26]

We developed our approach prior to the submission of Directlink's revenue proposal. As required by the rate of return framework[27], in December 2013 we published the Guideline [28] as contemplated by the NER.[29] The Guideline was designed through extensive consultation and involved effective and inclusive consumer participation.

Return on debt

Previously, we used an on-the-day approach to determine the return on debt.[30] This is the approach that many Australian regulators continue to use. However, for this decision, we have determined a return on debt estimate that gradually transitions from an on-the-day approach to a trailing average approach.[31] This is consistent with the views most stakeholders expressed during the Guideline development process.

Directlink proposed that we use a backwards looking approach to move from the on-the-day approach to the trailing average approach. This involved using data from the last ten years to set the return on debt for the 2015-20 regulatory control period. We disagree. Instead we have determined a gradual, forward looking transition to a trailing average.[32]

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25 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.

26 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.

27 NER, 6A.6.2(m)

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

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

30 This involved determining the return on debt by reference to the return on BBB+ rated bonds over a 10-40 business day averaging period that occurred as close as practicable to the start of the regulatory control period.

31 In broad terms, this means that over the longer term the return on debt for any year will represent the average return on debt over the previous ten years.

32 For 2015-16, this involves 100 per cent of the return on debt reflecting the return on bonds over an averaging period that occurred as close as practicable to the start of the 2015-16 regulatory year. For 2016-17, this will involve 90 per cent of the return on debt reflecting the 2015-16 averaging period and 10 per cent reflecting the 2016-17 averaging period. For 2017-18 this will involve 80 per cent of the return on debt reflecting the 2015-16 averaging period, 10 per cent reflecting the 2016-17 averaging period and 10 per cent reflecting the 2017-18 averaging period. This process will continue until, after 10 years, the entire debt portfolio has been updated and incorporated into the trailing average approach. At that point the transition is complete. This approach is the same as the transitional arrangements we proposed in the Rate of Return Guideline.

As mentioned in section 1, rate of return is the most material revenue difference between our final decision and Directlink's revised proposal. As a result, we summarise our reasons in some detail below.

We are satisfied that a gradual, forward looking transition to a trailing average approach results in a return on debt that contributes to the Allowed Rate of Return Objective. In particular, this approach takes account of any impacts on a *benchmark efficient entity* that could arise as a result of changing the methodology that is used to estimate the return on debt.[33] This includes impacts that occur across regulatory control periods.

In particular, a gradual, forward looking transition:

- Has regard to the impact on a benchmark efficient entity of changing the method for estimating the return on debt
- Promotes efficient financing practices consistent with the principles of incentive based regulation
- Provides a benchmark efficient entity with a reasonable opportunity to recover at least the efficient financing costs it incurs in financing its assets. And as a result it:
    - Promotes efficient investment, and
    - Promotes consumers not paying more than necessary for a safe and reliable network
- Avoids a potential bias in regulatory decision making that can arise from choosing an approach that uses historical data after the results of that historical data are already known
- Avoids practical problems with the use of historical data as estimating the return on debt during the global financial crisis is a difficult and contentious exercise.

Return on equity

Directlink agrees with our approach to determining the return on equity. It involves considering all of the information before us, through a six step process as set out in the Guideline (foundation model approach). This includes detailed consideration of a number of financial models for determining the return on equity. Considering all of this material helps inform a return on equity estimate that contributes to the achievement of the Allowed Rate of Return Objective.

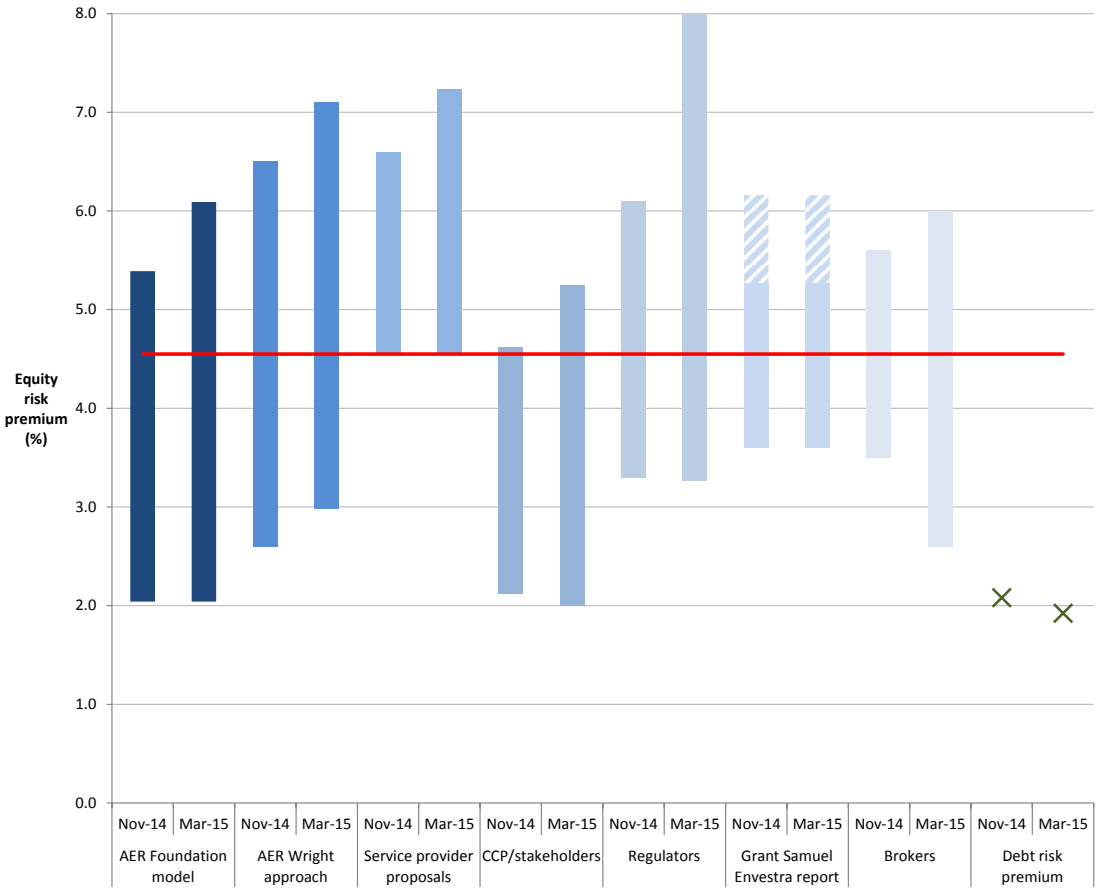
We consider that the Sharpe–Lintner capital asset pricing model (SLCAPM) is the superior financial model in terms of estimating expected equity returns. We have therefore adopted this model as our foundation model. The expert evidence before us also indicates that on balance employing our foundation model approach and using the

[33] NER, cl. 6A.6.2(k)(4).

SLCAPM as the foundation model is expected to lead to a rate of return that achieves the Allowed Rate of Return Objective.[34]

We also evaluated our point estimate from the SLCAPM 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 any given time.[35] Our estimate of the ERP for the benchmark efficient entity is 4.55 per cent, which is within the range of other information available to inform the return on equity (see Figure 5).

Figure 5 Equity risk premium comparison



Source: AER analysis and various submissions and reports.

Notes: The AER foundation model equity risk premium (ERP) range uses the range and point estimate for MRP and equity beta as set out in step three. The calculation of the Wright approach, debt premium, brokers, and

[34] McKenzie & Partington, *Part A: Return on equity, Report to the AER*, October 2014, p. 13;and *Return on equity, Report to the AER*, (Updated) April 2015, John Handley, *Advice on return on equity, Report prepared for the AER*, October 2014, p. 3.

[35] 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).

other regulators ranges is outlined in more detail in our final decision on TransGrid's transmission determination 2015-18, which was released at the same time as this decision.[36]

Grant Samuel's final WACC range included an uplift above an initial SLCAPM range. The lower bound of the Grant Samuel range shown above excludes the uplift while the upper bound includes the uplift and is on the basis that it is an uplift to return on equity. Grant Samuel made no explicit allowance for the impact of Australia's dividend imputation system. We are uncertain as to the extent of any dividend imputation adjustment that should be applied to estimates from other market practitioners. Accordingly, the upper bound of the range shown above includes an adjustment for dividend imputation, while the lower bound does not. The upper shaded portion of the range includes the entirety of the uplift on return on equity and a full dividend imputation adjustment.[37]

The service provider proposals range is based on the proposals from service providers for which we are making final or preliminary decisions in April–May 2015.[38] ERPs were calculated as the proposed return on equity less the risk free rate utilised in the service provider's proposed estimation approach.

The CCP/stakeholder range is based on submissions made (not including service providers) in relation to our final or preliminary decisions in April–May 2015. The lower bound is based on the Energy Users Association of Australia submission on NSW distributors' revised proposals. The upper bound is based on Origin's submission on ActewAGL's proposal.[39]

2.4 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.[40] These are received after company income tax is paid, but before personal income tax is paid. 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 NER require that the estimated cost of corporate income tax be estimated in accordance with a formula that reduces the estimated cost by the 'value of imputation credits'.[41] That is, the revenue a service provider recovers from customers in respect of its expected tax liability must be reduced in a manner consistent with the value of imputation credits.

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.

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36 AER Final decision, TransGrid transmission determination 2015-18, April 2015 - see Attachment 3, Appendices E.1, E.2, E.4, and E.5 respectively (http://www.aer.gov.au/node/23137).

37 Grant Samuel, *Envestra: Financial services guide and independent expert's report*, March 2014, Appendix 3.

38 ActewAGL, Ausgrid, Directlink, Endeavour Energy, Energex, Ergon Energy, Essential Energy, Jemena Gas Networks, SA Power Networks, TasNetworks, and TransGrid.

39 Energy Users Association of Australia, *Submission to NSW DNSP Revised Revenue Proposal to AER Draft Determination (2014 to 2019)*, February 2015, pp. 15–16; Origin Energy, *Submission to ActewAGL's regulatory proposal for 2014–19*, August 2014, p. 4.

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

41 NER, cll. 6A.5.4(a)(4), 6A.5.4(b)(4) and 6A.6.4.

Although we have broadly maintained the approach to determining the value of imputation credits set out in the Rate of Return 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 of 0.5 in the Guideline. Most notably, our updated consideration of the relevant advice and evidence led us to generally lower estimates of the 'utilisation rate' than the 0.7 estimate in the Guideline. Estimating the value of imputation credits is a complex and somewhat 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. 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')
- the reported value of credits utilised by investors in Australian Taxation Office (ATO) statistics ('tax statistics')
- implied market value studies—there is no separate market in which imputation credits are traded, and therefore there is no observable market price for imputation credits.

In estimating the utilisation rate, we place:

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

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 equity ownership approach, on which we have placed the most reliance, suggests a value between 0.40 and 0.47 when applied to all equity and between 0.31 and 0.44 when applied to only listed equity. Therefore, the overlap of the evidence from the equity ownership approach suggests a value between 0.40 and 0.44.
- The evidence from tax statistics suggests the value could be lower than 0.4. Therefore, with regard to this evidence and the lesser reliance we place on it, we choose a value at the lower end of the range suggested by the overlap of evidence from the equity ownership approach (that is, 0.4).
- An estimate of 0.4 is reasonable in light of both higher and lower estimates from implied market value studies and the lesser degree of reliance we place on these studies. The service providers submitted evidence to support placing more reliance on SFG Consulting's dividend drop off study relative to other implied market value

studies. However, we consider that neither the difference from 0.4 of the estimate from this study (0.32) nor any increased reliance we might place on it relative to other implied market value studies are sufficient to warrant an estimate lower than 0.4.

2.5 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.[42]

Our final decision is to determine alternative depreciation schedules, and hence, the depreciation allowance, to apply to Directlink.[43] We have set the allowance at $10.7 million ($ nominal).

Table 5 sets out our final decision on Directlink's depreciation allowance for the 2015–20 regulatory control period.

Table 5 AER's final 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	5.0	5.4	5.6	5.8	6.1	27.7
Less: inflation indexation on opening RAB	3.3	3.4	3.4	3.4	3.5	17.1
Regulatory depreciation	1.7	1.9	2.1	2.4	2.6	10.7

Source: AER analysis.

We do not accept Directlink's revised proposal for a regulatory depreciation allowance of $11.3 million ($ nominal) for the 2015–20 regulatory control period. Instead, we determine a regulatory depreciation allowance of $10.7 million ($ nominal) for Directlink, a reduction of $0.5 million (or 5.5 per cent) from the proposal. Our amendment reflects our decisions on other components of Directlink's proposal that affect the forecast regulatory depreciation allowance—for example, capex (Attachment 6).

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

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

Details of our final decision on the regulatory depreciation allowance are set out in Attachment 5.

2.6 Capital expenditure

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.

We estimate total forecast capex of $26.86 million ($2014-15) for Directlink's 2015-20 regulatory control period. This represents a 27.5 per cent reduction to Directlink's proposed capex.

Table 6 shows our final decision compared to Directlink's revised proposal.

Table 6 AER final decision on Directlink's total capex ($ million 2014 -15)

	2015–16	2016–17	2017–18	2018–19	2019–20	Total
Directlink's revised proposal	10.14	3.71	3.55	4.33	15.33	37.06
AER final decision	7.0	1.6	1.9	2.7	13.7	26.86
Difference ($million)	3.18	2.11	1.65	1.63	1.63	10.20
Difference (per cent)	30.1	56.9	46.5	37.6	10.6	27.52

Source: Directlink, Revised revenue proposal; Directlink responses to AER Information Requests; AER analysis.

Note: Numbers may not add to total due to rounding

Attachment 6 sets out our detailed reasons for our final decision on Directlink's total forecast capex. The key areas of difference between our substitute estimate and Directlink's revised proposal are that our estimate does not include:

- Directlink's proposed capex cable replacement program of $8.37 million ($2014-15) which we instead reviewed as opex (see section 2.7 below). This accounts for 82 per cent of the difference between us and Directlink
- $1.25 million ($2014-15) of Directlink's proposed fire suppression system on the basis of adjustments to proposed contingencies, project management and supervision costs and labour hour estimates. This accounts for 12 per cent of the difference between us and Directlink
- $0.40 million ($2014-15) of Directlink's proposed phase reactor cooling system upgrade on the basis of adjustments to proposed contingencies, labour hour estimates, design outsourcing costs and adjustments for economies of scale in sundry materials costs. This accounts for 4 per cent of the difference between us and Directlink
- $0.18 million ($2014-15) of Directlink's proposed converter station roof repair on the basis of a lower suitable quote for the proposed work. This accounts for 2 per cent of the difference between us and Directlink.

2.7 Operating expenditure

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 operation of its network.

We estimate total forecast opex (excluding debt raising costs) of $17.7 million ($2014–15) for the 2015–20 regulatory control period. This includes an allowance for Directlink's proposed cable replacement expenditure, which we consider Directlink had incorrectly classified as capex in its revised proposal. When these elements of Directlink's proposal are combined, our total forecast opex is 33.7 per cent lower than proposed by Directlink.

We have included $0.3 million for the 2015-20 period for debt raising costs (see Attachment 3).

Table 7 and Figure 6 show our final decision compared to Directlink's revised proposal.

Table 7 AER final decision on Directlink's total opex[(a)] ($million 2014–15)

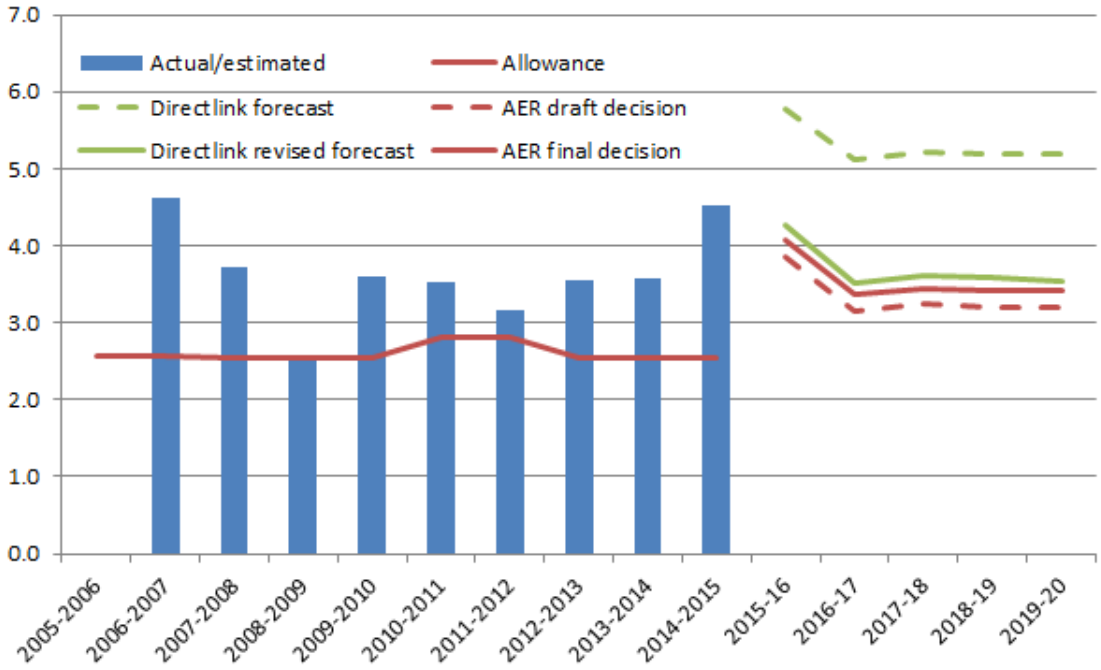
	2015–16	2016–17	2017–18	2018–19	2019-20	Total
Directlink's revised opex proposal	4.3	3.5	3.6	3.6	3.5	18.5
Directlink's revised opex proposal incl. cable replacement program proposal	5.9	5.2	5.3	5.2	5.2	26.7
AER final decision[(b)]	4.1	3.4	3.5	3.4	3.4	17.7
Difference ($million)	-1.8	-1.8	-1.8	-1.8	-1.8	-9.0
Difference (%)	-31.0%	-34.8%	-34.3%	-34.7%	-34.0%	-33.7%

Source: Directlink, proposal; AER analysis

Note: (a) This excludes debt raising costs.

(b) This includes expenditure which was classified as capex in Directlink's revised proposal.

Figure 6 Directlink's actual/estimated and proposed opex, AER draft and final decisions[a] ($ million, 2014–15)



Source: AER analysis.

Note: (a) The AER final decision includes expenditure which was classified as capex in Directlink's revised proposal. Directlink's revised proposal excludes opex that was shifted to capex between its initial and draft proposal. This is exclusive of debt raising costs.

Attachment 7 sets out our detailed reasons for our final decision on Directlink's total forecast opex. The key areas of difference between our substitute estimate and Directlink's revised proposal are that our estimate includes:

- cable repair expenditure as opex and not as capex as proposed by Directlink. Our estimate for reactive repairs is based on three cable repairs per year, rather than the 12 cable repairs proposed by Directlink. This accounts for 68 per cent of the difference between us and Directlink
- less forecast insurance expenditure than proposed by Directlink. This accounts for 19 per cent of the difference between us and Directlink.
- a forecast of commercial services expenditure based on the most contemporary audited revenue, which is calendar year 2013. This accounts for 4.1 per cent of the difference between us and Directlink
- an adjustment of the forecast associated with the APA Operations 10 per cent margin that applies to all elements of opex given the lower expenditure we forecast for the operating and maintenance expenditure, and insurance and commercial services expenditure. The adjustment to the amount based on the margin accounts for 9.1 per cent of the difference between us and Directlink.

2.8 Corporate income tax

The NER require us to make a decision on the estimated cost of corporate income tax for Directlink's 2015–20 regulatory control period.[44] 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.

Our final decision is to determine a cost of corporate income tax allowance of $2.1 million ($ nominal), 35.6 per cent lower than Directlink's revised proposal. Table 8 sets out our final decision on Directlink's corporate income tax allowance for the 2015–20 regulatory control period.

Table 8 AER's final 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	0.6	0.6	0.7	0.7	0.8	3.4
Less: value of imputation credits	0.2	0.3	0.3	0.3	0.3	1.4
Net corporate income tax allowance	0.3	0.4	0.4	0.4	0.5	2.1

Source: AER analysis.

We accept Directlink's proposed approach to estimating its cost of corporate income tax. However, our final decision reflects our amendment to the value of imputation credits (gamma) as discussed in Attachment 4 and section 2.4 above, which is a key input to calculating Directlink's cost of corporate income tax.[45] Changes to other building block components that affect revenues also impact the tax calculation.

Details of our final decision on the corporate income tax allowance are set out in Attachment 8.

[44] NER, cl. 6A.5.4(a)(4).

[45] NER, cl. 6A.6.4.

3 Incentive schemes

Incentive schemes are a component of incentive-based regulation and complement our approach to assessing efficient costs. The incentive schemes that will apply to Directlink are:

- The efficiency benefit sharing scheme (EBSS)
- The capital expenditure sharing scheme (CESS)
- The service target performance incentive scheme (STPIS).

3.1 Efficiency benefit sharing scheme (EBSS)

The EBSS provides an additional incentive for service providers to pursue efficiency improvements in opex. It is a key component of incentive regulation under the NER.

As opex is largely recurrent and predictable, opex in one period is generally a good indicator of opex in the next period (step changes provide for increases where this is not the case). Where a service provider is relatively efficient, we use the actual opex it incurred in a chosen base year of the regulatory control period to forecast opex for the next regulatory control period. We call this the 'revealed cost approach'.

To encourage a service provider to become more efficient during the regulatory control period, it is allowed to keep any difference between its approved forecast and its actual opex during a regulatory control period. This is supplemented by the EBSS which allows the service provider to retain efficiency savings and efficiency losses for a longer period of time. In total these rewards and penalties work together to provide a continuous incentive for a service provider to pursue efficiency gains over the regulatory control period. The EBSS also discourages a service provider from incurring opex in the expected base year in order to receive a higher opex allowance in the following regulatory control period.

Directlink was not subject to the EBSS during the 2006–15 regulatory control period. We will apply version two of the EBSS to Directlink during the 2015–20 regulatory control period.[46] We will exclude debt raising costs from the calculation of EBSS carryover amounts.

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

3.2 Capital expenditure sharing scheme (CESS)

The CESS provides financial rewards for service providers whose capex becomes more efficient throughout the regulatory control period, and financial penalties for those

[46] AER, *Efficiency benefit sharing scheme for electricity network service providers*, November 2013.

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.

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.

3.3 Service target performance incentive scheme (STPIS)

The current version of the STPIS, version 4.1 consists of 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.
- Version 4.1 provides that the network capability component does not apply to Directlink.

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.

In applying the service component, we have not accepted Directlink's proposed performance targets based on the average performance over the 2008–12 period. We consider adjustment is required to account for the expected reliability improvement from increase in the volume of capital works planned during the regulatory control period. Adjustment to the proposed performance targets also results in adjustments to the proposed caps and collars.

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

In applying the market impact component, we have validated and confirmed the relevant market impact performance data which was provided by Directlink subsequent to the submission of its 2015–20 revenue proposal. As a result of our audit, we made adjustments to the market impact performance values submitted by Directlink.

4 Regulatory framework

The NEL and the NER provide the regulatory framework under which we operate. They set out how we must assess a revenue proposal and make our decision. In this section we set out some key aspects of this framework.

The NEO is the central feature of the regulatory 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.[47]

The NEL also includes the revenue and pricing principles (RPP), which support the NEO.[48] As the NEL requires,[49] 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.
>
> 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

47 NEL, s. 7.
48 NEL, s. 7A.
49 NEL, s. 16(2).

- 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.

Consistent with Energy Ministers' views, we set the amount of revenue that service providers may recover from customers, and in doing so we balance all of the elements of the NEO and consider each of the RPPs are equally vital.[50]

Chapter 6A of the NER provides specifically for the economic regulation of TNSPs. It includes detailed rules about the constituent components of our decisions. These are intended to contribute to the achievement of the NEO.[51] The AEMC has made it clear that, in relation to key aspects of revenue, the rules guide the AER but do not dictate any specific regulatory outcome.[52] For example, the AEMC has said:

> Some stakeholders appear to have understood the objectives as imposing on the regulator a requirement and that failure to comply with this would mean the regulator is in breach of the rules. This is not the case. Although the language of an obligation is used in some objectives, it is not necessarily expected that the substance of the objective will always be fully achieved, but rather the regulator should be striving to achieve the objective as fully as possible.

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

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50 Hansard, SA House of Assembly, 27 September 2007 pp. 965, Hansard, SA House of Assembly, 26 September 2013, p. 7173.

51 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.

52 AEMC, *Rule Determination National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006 No. 18,* p. 33-34
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 35-6.

4.1 Understanding the NEO

Energy Ministers have provided us with a substantial body of explanatory material that guides our understanding of the NEO.[53] The long term interests of consumers are not delivered by any one of the NEO's factors in isolation, but rather by balancing them in reaching a regulatory decision.[54]

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 safe and reliable service that they value at least cost in the long run.[55] 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 apply. TNSPs are largely natural monopolies. In addition, 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, reliability and price the TNSPs offer.

The NEL and NER aim to remedy the absence of competition by providing that we, as regulator, 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 judgement to balance the NEO's various factors.

It is important to recognise that there are a number of plausible outcomes that may contribute to the achievement of the NEO. The nature of decisions under the NER is such that there may be a range of economically efficient decisions, with different implications for the long term interests of consumers.[56] 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 or unable to efficiently use the network.[57] 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

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53 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.

54 Hansard, SA House of Assembly, 26 September 2013 p. 7173.

55 Hansard, SA House of Assembly, 9 February 2005 p. 1452.

56 *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.
AEMC, *Rule Determination National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006 No. 18,* p. 50.

57 NEL, s. 7A(7).

the appropriate quality and level of service, and where customers are making more use of the network than is sustainable. This could create longer term problems in the network[58] and could have adverse consequences for safety, security and reliability of the network.

4.2 The 2012 framework changes

This is the first decision we have made following changes to the NEL and NER in 2012 and 2013. The NEL and NER were amended to provide greater emphasis on the NEO and greater discretion to us.[59] The amended NER allow, and the AEMC has encouraged, us to approach decision making more holistically to meet overall objectives consistent with the NEO and RPPs.[60] Further, one of the purposes of these changes was to give consumers a clearer and more prominent role in the decision making process.[61]

In 2013, the NEL was changed with similar aims in mind. The long term interests of consumers are a key focus of the changes.[62] The changes also support analysing the decision *as a whole* in light of the NEO.[63] The NEL now 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 decision.[64] It also anticipates the possibility of two or more decisions that will or are likely to contribute to the achievement of the NEO. It requires that, in those cases, we must make the decision we are satisfied will or is likely to contribute to the achievement of the NEO to the greatest degree.[65] The NER require that we provide reasons for our decisions.[66]

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58 NEL, s. 7A(6).

59 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.

60 For example, NER, cl. 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.

61 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.

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

63 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.

64 NEL, s. 16(c).

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

66 NER, cl. 6A.13.3(2).

The NEL does not prescribe how we are to apply these overarching requirements and so in applying them, we have exercised our regulatory judgement.

We have done so by determining revenue in accordance with the detailed provisions in the NER. This assessment is in each of our Attachments. As part of that assessment, and in accordance with the NEL requirements, we identify and assess the interrelationships between the constituent components of our final decision. In the following sections, we explain our approach to evaluating these interrelationships and then set out how we assessed what will contribute to the achievement of the NEO to the greatest degree. Section 1 of this overview demonstrates how we have applied these approaches for this decision.

4.2.1 Interrelationships

A transmission determination is a complex decision and must be considered as such. Considering constituent components in isolation ignores the importance of interrelationships between the components and would not contribute to the achievement of the NEO. As outlined by Energy Ministers, considering the elements in isolation has resulted in regulatory failures in the past.[67] Interrelationships can take various forms, including:

- underlying drivers and context which 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 (see Attachment 6).
- direct mathematical links between different components of a decision. For example, the value of imputation credits (gamma) 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 overall vanilla rate of return (see Attachments 3, 4 and 8).
- trade-offs between different components of revenue. For example, undertaking a particular capex project may affect the need for opex or vice versa (see Attachments 6 and 7).
- trade-offs between forecast and actual regulatory measures. 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 (see Attachments 6 and 7).
- the TNSP's attitude to managing its network. The TNSP's governance arrangements and its approach to risk management will influence most aspects of the proposal, including capex/opex trade-offs (see Attachments 6 and 7).

We have considered interrelationships in our analysis of the constituent components of our decision. These considerations are explored in the relevant attachments.

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[67] 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 Process

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.[68]

Below we set out the process we have followed leading up to Directlink's submission of its proposal, to ensure that we have fully taken into account all views.

5.1 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.[69] 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.[70]

The resulting guidelines support our decision making framework as set out in section 16 of the NEL. Our consultation and engagement gives us confidence the approaches set out in the guidelines, which we have applied in this decision, will result in decisions that will or are likely to contribute to the achievement of the NEO. Our Better Regulation guidelines are available on our website and include:[71]

- Expenditure Forecast Assessment Guideline
- Expenditure Incentives Guideline
- Rate of Return Guideline
- Consumer Engagement Guideline
- Shared Assets Guideline
- Confidentiality Guideline.

5.2 Our engagement during the decision making process

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

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68 NEL, s. 16(1)(b)

69 AER, *Overview of the Better Regulation reform package*, April 2014, pp. 4 and 7–13.

70 AER, *Overview of the Better Regulation reform package*, April 2014, pp. 4 and 7–13.

71 http://www.aer.gov.au/Better-regulation-reform-program

- inviting submissions on Directlink's proposal, and publishing an issues paper on 8 July 2014 to help stakeholders engage with, and meaningfully respond to, issues in Directlink's revenue proposal that we considered material to consumers[72]
- hosting a public forum in Sydney on 10 July 2014 so stakeholders could question the AER and Directlink on its revenue proposal
- publishing our draft decision for consultation on 27 November 2014, and hosting a pre-determination conference in Sydney on 8 December 2014 so stakeholders could question the AER and Directlink on our draft decision
- considering Directlink's revised proposal and stakeholder submissions on the draft decision. A list of stakeholder submissions is provided in Appendix B.
- having Directlink present its revised proposal to the AER Board in February 2015, so questions could be raised and key issues explained.

AER staff, including our technical advisors, directly engaged with staff at Directlink throughout the review process, and tested material and information underpinning its revenue proposal. During this process, we requested and considered additional information from Directlink to help us understand its initial and revised proposals.

[72] AER - Issues paper TransGrid, TasNetworks (Transend), Directlink electricity transmission revenue proposals - July 2014 (http://www.aer.gov.au/node/23143). Clause 6A.11.3(b)-(b2) requires the AER publish an issues paper, however cl. 11.57.2(a) of the transition rules excludes these sections from this determination. While we were not required to prepare an issues paper, we used it as a guide for stakeholders on what we saw as the key issues and suggestions where they could focus their responses in light of the volume of material submitted. We therefore structured our issues paper by providing a high level perspective on Directlink's proposal and our initial observations followed by some analysis around key drivers of Directlink's proposal.

A Constituent components

Our final decision on Directlink's transmission determination includes the following constituent components:[73]

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 revised building block proposal. Our final decision on Directlink's total revenue cap over the 2015–20 regulatory control period is $68.7 million ($ nominal). This decision is discussed in Attachment 1 of this final decision. [See also section 1.1-1.3 of the transmission determination.]
In accordance with clause 6A.14.1(ii) of the NER, the AER has not approved the maximum allowed revenue (MAR) for each regulatory year of the regulatory control period set out in Directlink's revised building block proposal. Our final decision on Directlink's MAR for each year of the 2015–20 regulatory control period is set out in Attachment 1 of this final decision. [See also section 1.1-1.3 of the transmission determination.]
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 final decision. [See also section 1.6 of the transmission determination.]
In accordance with clause 6A.14.1(1)(iv) of the NER, 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 final decision. [See also section 1.7 of the transmission determination.]
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. [See also section 1.9 of the transmission determination.]
In accordance with clause 6A.14.1(2) and acting in accordance with clause 6A.6.7(d) of the NER, the AER has not accepted Directlink's total forecast capital expenditure of $37.06 million ($2014–15). Our substitute estimate of Directlink's total forecast capex for the 2015–20 period is $26.86 million ($2014–15). This is discussed in Attachment 6 of this final decision.
In accordance with clause 6A.14.1(3) and acting in accordance with clause 6A.6.6(d) of the NER, the AER has not accepted Directlink's total forecast operating expenditure of $18.5 million ($2014–15). Our substitute estimate of Directlink's total forecast opex for the 2015–20 period, inclusive of debt raising costs, is $18.1 million ($2014–15). This is discussed in Attachment 7 of this final decision.
Directlink did not propose any contingent projects for the 2015–20 regulatory control period. In accordance with clause 6A.14.1(4)(i) of the NER the AER has determined that there are no contingent projects for the purposes of this revenue determination.
In accordance with clause 6A.14.1(5A) of the NER, 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 final decision. [See also section 1.8 of the transmission determination.]
In accordance with clause 6A.14.1(5B) of the NER 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 5.45 per cent (nominal vanilla), as set out in Attachment 3 of this final 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) of the NER 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 final decision.
In accordance with clause 6A.14.1(5E) of the NER the AER has decided, in accordance with clause 6A.6.1 and schedule 6A.2,

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

Constituent component
that the regulatory asset base (RAB) as at the commencement of the regulatory control period is $129.4 million at 1 July 2015. This is set out in Attachment 2 of this final decision. [See also section 1.4 of the transmission determination.]
In accordance with clause 6A.14.1(5F) of the NER 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 final decision. [See also section 1.5 of the transmission determination.]
In accordance with clause 6A.14.1(6) of the NER the AER has approved Directlink's proposed negotiating framework. [See section 2 of the transmission determination.]
In accordance with clause 6A.14.1(7) of the NER the AER has specified the negotiated transmission services criteria for Directlink in Attachment 12 of this final decision . [See also section 3 of the transmission determination.]
In accordance with clause 6A.14.1(8) of the NER the AER has approved Directlink's pricing methodology for the 2015–20 regulatory control period. This is discussed in Attachment 12 of this final decision. [See also section 4 of the transmission determination.]
In accordance with clause 6A.14.1(9) of the NER the AER has approved the following nominated pass through events to apply to Directlink for the 2015–20 regulatory control period in accordance with clause 6A.6.9. • insurance cap event • terrorism event • natural disaster event. These events have the definitions listed in Table 13.1 in Attachment 13 of this final decision. [See also section 5 of the transmission determination.]

B List of submissions

We invited submissions on our draft decision and Directlink's revised proposal by 6 February 2015. The following stakeholders made written submissions:

Submission	Date
Directlink	6 February 2015
Ergon Energy	13 February 2015, 27 March 2015*
CitiPower and Powercor	6 February 2015
Jemena Limited	6 February 2015
Australian Gas Networks	13 February 2015
SA Power Networks	6 February 2015
United Energy^	6 February 2015, 13 February 2015; 27 March 2015*

* Clause 6A.16(a) of the NER provides that the AER may, but is not required to, consider any late submission. Submissions from Ergon Energy and United Energy on 27 March 2015 were provided a considerable time after submissions on our draft decision and Directlink's revised proposal closed. As we were in the final stages of our review of Directlink's revised proposal at that time, there was not sufficient time for the AER, consumers or regulated businesses to comment upon or respond to these submissions in a meaningful way. We therefore exercised our discretion under clause 6A.16(a) not to consider these late submissions for the purposes of this final decision. This has not affected our consideration of submissions made by Ergon Energy on 13 February 2015, or by United Energy on 6 February and 13 February 2015.