



**Draft decision**  
**TasNetworks transmission determination**  
**2015-16 to 2018-19**  
**Overview**

November 2014

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## Shortened forms

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

TasNetworks is the principal transmission network service provider (TNSP) in Tasmania. We, the Australian Energy Regulator (AER), regulate the allowed revenues of TasNetworks and other TNSPs in the national electricity market (NEM).

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 encourages 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, TasNetworks 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 TasNetworks' 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 TasNetworks may recover from its customers over the 2015-19 regulatory control period. In total, our draft decision provides an allowance of \$731.2 million (\$ nominal) which TasNetworks will recover over four financial years commencing 1 July 2015.

In Tasmania, transmission charges represent approximately 15 per cent of a customer's average annual electricity bill.<sup>1</sup> To estimate bill impact, we assume that our changes to transmission charges are passed through to end users, but that other components of the electricity bill (for example distribution, wholesale and retail energy costs) are held constant. On this basis, we would expect the average annual electricity bill for residential customers to reduce by \$10 (or 0.4 per cent) in 2015–16. Further details can be found in section 7 of this overview.

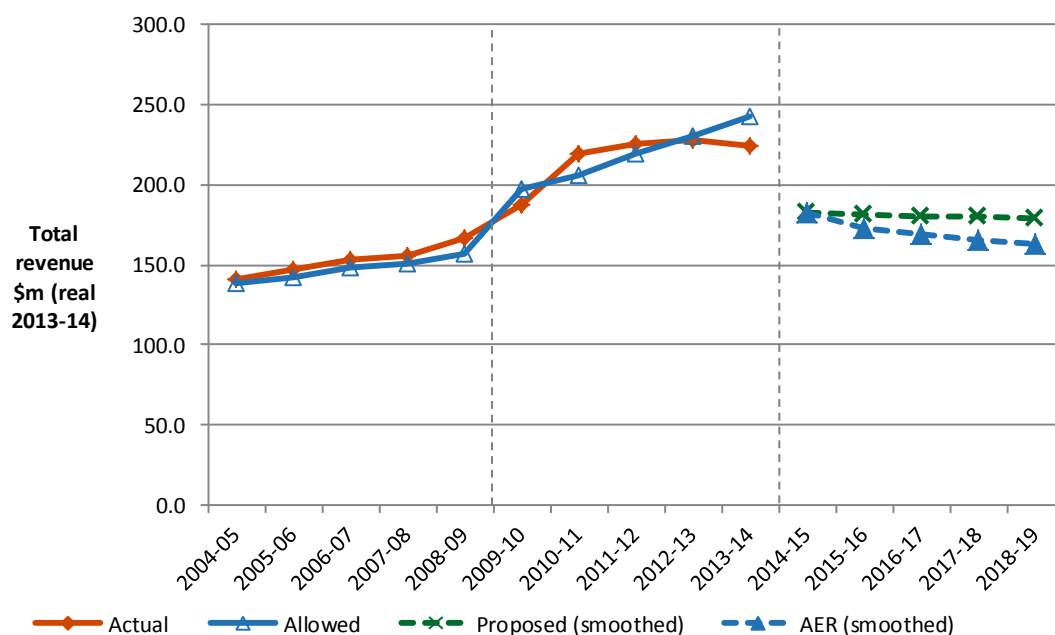
Figure 1.1 shows TasNetworks' past total revenue (both allowed and actual),<sup>2</sup> proposed total revenue and our draft total revenue allowance.

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<sup>1</sup> OTTER, *Comparison of 2014 Australian standing offer energy prices*, March 2014, p. 3.

<sup>2</sup> The actual for 2013–14 is an estimate provided by the service provider.

**Figure 1-1 TasNetworks' past total revenue, proposed total revenue and AER draft decision revenue allowance (\$ million, 2013–14)**



Source: AER analysis.

If we had accepted TasNetworks' proposal submitted in June 2015, it would have been permitted to recover \$786.1 million (\$ nominal) in allowed revenue over the 2015–19 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, as required by the National Electricity Law (NEL)<sup>3</sup>.

This document provides the reader with an overview of our draft decision. It offers an insight into the issues we 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.

TasNetworks' proposal also put forward a significant reduction in revenues compared to the current regulatory control period. Like this draft decision, it reflects changes in the underlying drivers of the costs of providing transmission services in Tasmania. Specifically, circumstances have changed since the last regulatory control period such that there has been a material easing in the pressure on costs since we made our last determination in 2009. Consequently, both TasNetworks' proposal and our draft decision provide for significantly less allowed revenue (on average) than what was approved in the last period. Indeed, subject to the revisions discussed below, we have largely accepted most aspects of TasNetworks' proposal.

The underlying drivers of the costs of providing transmission services in Tasmania that are reflected in this draft decision are:

- Financial market conditions. Our draft decision reflects current financial market conditions. Our decision in 2009 was made at the height of uncertainty surrounding the global financial crisis. Presently, interest rates and risk premiums are now materially lower than in 2009.

<sup>3</sup> NEL, s. 16(1)(d).



- Lower than forecast capital expenditure (capex) in the 2009–14 regulatory control period, which will reduce TasNetworks' opening regulatory asset base (RAB) relative to that forecast in our last determination
- Significant capex investments in 2009–14 (albeit less than forecast in our previous determination), with the result that maintenance intensive assets have been replaced with modern, less maintenance intensive assets, which should lead to reductions in repex and maintenance expenditure in 2014-19.
- Continued flat or small demand growth, resulting in historical low levels of forecast augmentation for the 2014-19 period, reduced further since the submission of TasNetworks' proposal, based on new information from TasNetworks and AEMO.
- Efficiency improvements over the regulatory control period as a result of reduced staffing levels, rationalisation of duplicate systems and productivity gains associated with the merger of Aurora and Transend, and improved ways of delivering services to customers.

Our view of the underlying drivers is that TasNetworks' revenue ought to be lower than in the 2009–14 regulatory control period. TasNetworks' proposal also reflects this, and puts forward proposed revenues that are significantly lower than current levels. As noted, subject to the revisions discussed below and in our attachments and appendices, we have largely accepted most aspects of TasNetworks' proposal.

## Key constituent decisions

Our draft decision on TasNetworks' total revenue allowance is predicated on a number of constituent components<sup>4</sup>, listed for convenience in appendix A. The combined effect is an overall revenue allowance for TasNetworks that is lower than what we approved for the 2009–14 regulatory control period, and a reduction of 7 per cent from TasNetworks' proposed total revenue.

As we explain below (and in more detail in our attachments and appendices), the differences between our draft decision and TasNetworks' proposal are relatively slight. The 7 per cent difference in revenue proposed and allowed is predominately the result of small adjustments to the allowed rate of return and a revised capital expenditure program which TasNetworks itself has proposed:

- A lower rate of return. We are not satisfied that TasNetworks' proposed (indicative) 7.58 per cent rate of return achieves the allowed rate of return objective. We have allowed a rate of return of 6.88 per cent (nominal vanilla) that, subject to updating, achieves the allowed rate of return objective. TasNetworks followed our rate of return guideline in determining its proposed rate of return.<sup>5</sup> The differences between the underlying methodology proposed by TasNetworks for the rate of return, and our draft decision methodology, are relatively slight. Most of the difference between the proposed and allowed rate of return relates to changes in the risk-free rate and debt risk premium since TasNetworks submitted their proposal in June 2014. TasNetworks' proposed 7.58 per cent rate of return was submitted as an indicative rate only, and was intended to be updated in this manner for this draft decision.
- A lower forecast of capital expenditure (capex). We have not accepted the total forecast capex of \$275.9 million (\$2013–14) TasNetworks included in its proposal. Our substitute estimate of TasNetworks' total forecast capex for the 2014–2019 period, which we are satisfied reasonably

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<sup>4</sup> NEL, s. 16(1)(c); NER, cl. 6A.14.1.

<sup>5</sup> TasNetworks, *Revenue proposal*, May 2014, p. 108.

reflects the capex criteria, is \$246.4 million (\$2013–14). Our substitute estimate of forecast capex has been informed in large part by new information submitted by TasNetworks, which it considers supports further reductions to its proposed augmentation expenditure.

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

## 2 About our draft decision – context and framework

The NEL anticipates that there may be two or more possible overall 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 achievement of the NEO to the greatest degree.<sup>6</sup>

This overview sets out why we are satisfied that our draft decision will contribute to the achievement of the NEO to the greatest degree. 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.<sup>7</sup> 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.<sup>8</sup>

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.<sup>9</sup>

The NEL also includes the revenue and pricing principles (RPP), which support the NEO.<sup>10</sup> As the NEL requires<sup>11</sup>, 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—

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<sup>6</sup> NEL, s. 16(1)(d).

<sup>7</sup> 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.

<sup>8</sup> See especially sections 5 and 6 below.

<sup>9</sup> NEL, s. 7.

<sup>10</sup> NEL, s. 7A.

<sup>11</sup> NEL, s. 16(2).

- 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. In doing so, 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' view that all of these principles are equally vital.<sup>12</sup> 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.<sup>13</sup>

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 TasNetworks' proposal and the total revenue allowance we propose to approve
- outlines the context and framework of our decision. It discusses the NEO<sup>14</sup> and section 16 of the NEL, being the manner in which we must perform our economic regulatory functions and powers
- 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

<sup>12</sup> Hansard, SA House of Assembly, 27 September 2007 pp. 965

<sup>13</sup> 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.

<sup>14</sup> NEL, s. 16.

Our attachments support the overview by setting out:

- our detailed analysis of TasNetworks' 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.<sup>15</sup> The amended NER allow and encourage us to approach decision making more holistically to meet overall objectives consistent with the NEO and RPPs.<sup>16</sup> These changes also sought to give consumers a clearer and more prominent role in the decision making process.<sup>17</sup>

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.<sup>18</sup> 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.<sup>19</sup>

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.<sup>20</sup> We consider this is an appropriate change as we determine an overall revenue allowance.<sup>21</sup> 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 projects that a TNSP must then implement. Rather, we determine what costs may reasonably form part of the sum total of revenue that we consider satisfies the requirements of the NEL and NER.<sup>22</sup> 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.

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<sup>15</sup> 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.

<sup>16</sup> 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.

<sup>17</sup> 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.

<sup>18</sup> Hansard, SA House of Assembly, 26 September 2013 p. 7171.

<sup>19</sup> 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.

<sup>20</sup> See Sections 5 and 6.

<sup>21</sup> NEL, ss. 2, 16, 71A and 71P.

<sup>22</sup> 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

## 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.<sup>23</sup> The long term interests of consumers are not delivered by any one of the NEO's factors in isolation, but rather by balancing them.<sup>24</sup>

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.<sup>25</sup> 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 exercise discretion 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.<sup>26</sup> 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.<sup>27</sup> 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.<sup>28</sup> This can have adverse consequences for safety, security and reliability of the network.

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<sup>23</sup> 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.

<sup>24</sup> Hansard, SA House of Assembly, 26 September 2013 p. 7173.

<sup>25</sup> Hansard, SA House of Assembly, 9 February 2005 p. 1452.

<sup>26</sup> *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.

<sup>27</sup> NEL, s. 7A(7).

<sup>28</sup> NEL, s. 7A(6).

## 2.4 The transitional and subsequent regulatory control periods

In November 2012, the AEMC introduced major changes to the economic regulation of TNSPs under chapter 6A of the NER (the new rules).<sup>29</sup>

Prior to the making of the new rules, TasNetworks' transmission determination was due to commence on 1 July 2014 and would apply for a period of five years. However, the process was delayed so consumers would receive the benefit of the new rules.

To allow for an expedited transition to the new rules, the AEMC made transitional rules in chapter 11 of the NER under which there would be two regulatory control periods to cover the following periods:<sup>30</sup>

- a regulatory control period covering the period 1 July 2014 to 30 June 2015, referred to in the NER as 'the transitional regulatory control period', and
- a regulatory control period beginning 1 July 2015 referred to in the NER as 'the subsequent regulatory control period'.<sup>31</sup>

For the transitional regulatory control period, we made a fast-tracked placeholder determination on 28 March 2014 for TasNetworks. In that determination, we were not satisfied with TasNetworks' proposed maximum allowed revenue for the transitional regulatory control period and instead approved an alternative maximum allowed revenue by adjusting a limited number of inputs to TasNetworks' proposal. We approved this as a placeholder allowance that would later be adjusted (or 'trued-up') in our full determination for the subsequent regulatory control period.

A more detailed explanation of our placeholder determination and a description of how we apply the true up are set out in appendix B.

TasNetworks proposed a four year subsequent regulatory control period, which we have accepted.<sup>32</sup>

### Rules applicable to this decision

We assessed TasNetworks' 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 TasNetworks' 2009–2014 period to conduct an ex post review of its capital expenditure.<sup>33</sup> This means we are not permitted to adjust any of TasNetworks' 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 2009–14 period. However, historical capex and opex does inform our assessment of expenditure forecasts.

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<sup>29</sup> AEMC Final Rule Determination, *National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2012*, 29 November 2012 (AEMC Final Rule Determination).

<sup>30</sup> NER, cl.11.57.1 defines 'transitional regulatory control period' and 'subsequent regulatory control period' Cl. 11.58.2 outlines the requirements of a transitional regulatory proposal and cl.11.58.4 the subsequent regulatory control period

<sup>31</sup> NER, cl.11.57.1 definitions.

<sup>32</sup> Under NER, cl. 6A.14.3(e), we must approve a proposed period of 5 years. The definition of 'regulatory control period' for a TNSP is "a period of not less than five regulatory years in which a total revenue cap applies to that provider by virtue of a revenue determination" (NER, Chapter 10). However, under the transitional rules in Chapter 11, we must approve a period of 4 years if proposed by the TNSP, for the period beginning 1 July 2015, and otherwise could approve a proposed period of 'less than 4 regulatory years but not less than 3 regulatory years' or 'a period of more than 4 regulatory years': clause 11.58.4(l).

<sup>33</sup> 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.<sup>34</sup> This section focuses on the manner in which we have made this draft decision. Section 4 discusses material issues shows how we take account of stakeholder views. Section 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.<sup>35</sup> 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.<sup>36</sup> 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.<sup>37</sup> 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.<sup>38</sup> 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.<sup>39</sup>

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 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 outcome and we consider that the guidelines that resulted from this comprehensive engagement with all

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<sup>34</sup> NEL, s. 16(1)(a).

<sup>35</sup> AER, *Overview of the Better Regulation reform package*, April 2014, pp. 4 and 7–13.

<sup>36</sup> AER, *Overview of the Better Regulation reform package*, April 2014, pp. 4 and 7–13.

<sup>37</sup> 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](http://www.aer.gov.au/node/19166).

<sup>38</sup> AER, *Overview of the Better Regulation reform package*, April 2014, pp. 20–21.

<sup>39</sup> See for example – AER, *Rate of Return Guideline*, December 2013 pp. 25 and 66.



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 – 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 website<sup>40</sup> and summarised in appendix C.

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<sup>40</sup> <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.<sup>41</sup>

The starting point for our draft decision was to assess TasNetworks' regulatory proposal against the NEL and the NER.<sup>42</sup> In doing so, we applied our guidelines and assessment tools and gathered submissions from stakeholders and the Consumer Challenge Panel (CCP). We considered TasNetworks' regulatory proposal in light of submissions, its performance to date and its operating environment. A high level overview of these processes follows. A list of stakeholder submissions follows at appendix E.

### 4.1 Our engagement

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

- establishing the Consumer Challenge Panel (CCP) to assist us to make better regulatory determinations by providing input on issues of importance to consumers
- presenting to the Office of the Tasmanian Economic Regulator's Customer Consultative Committee on our reset process in February 2014
- publishing an issues paper to help stakeholders engage with, and meaningfully respond to issues in TasNetworks' regulatory proposal that we considered material to consumers
- hosting a public forum in Hobart on 9 July 2014 so stakeholders could question the AER, CCP and TasNetworks on its regulatory proposal
- considering eight submissions on TasNetworks' regulatory proposal, including a submission from the CCP
- having the CCP present its advice in response to TasNetworks' regulatory proposal to the AER Board in July 2014
- having TasNetworks present its revenue proposal to the AER Board in August 2014, so questions could be raised and key issues explained
- convening regular meetings between the Consumer Challenge Panel and AER staff to discuss key issues
- consulting on benchmarking measures prepared by us and Economic Insights, jointly relevant to the preparation of the annual benchmarking report and our assessment of TasNetworks' regulatory proposal.

AER staff, including our technical advisors and consultants, engaged directly with staff at TasNetworks involved in developing and managing the network, and tested the material and information which underpins its revenue proposal. During this process, additional information was requested from, and provided by, TasNetworks to assist our assessment of its proposal.

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<sup>41</sup> NEL, s. 16(1)(b)

<sup>42</sup> 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. 111.

### 4.1.1 Our issues paper

We published an issues paper to help stakeholders engage with, and meaningfully respond to issues in TasNetworks' regulatory proposal that we considered material to consumers. Under the NER, we were not required to prepare an issues paper.<sup>43</sup> However we thought it was important to provide a guide to stakeholders on key issues and 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 TasNetworks' proposal and our initial observations, followed by some analysis around key drivers of TasNetworks' proposal.<sup>44</sup>

### 4.1.2 Outcome of submissions

Many submissions commended TasNetworks for several elements of its revenue proposal that take into account the outcomes of consumer engagement, and changes in circumstances from the 2009-14 regulatory period. These changed conditions include lower-than-forecast electricity demand and the passing of the global financial crisis. Many stakeholders supported TasNetworks' proposed lower rate of return, reduction in forecast capex and opex, lower depreciation, merger efficiency savings, and for not pursuing under-recovered revenue. All these combined to lead TasNetworks to propose reduced transmission charges over the next five years in the 2014-19 period while committing to maintain the same service reliability standards.

However, stakeholders also argued that TasNetworks could further reduce proposed expenditures, revenues and rate of return if these and demand forecasts are closely scrutinised, and in the light of increases in actual transmission charges in the past ten years. Some stakeholders such as large industrial users commented that TasNetworks could improve engagement with them.

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<sup>43</sup> NER, cl.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.

<sup>44</sup> AER, *Issues paper TransGrid, TasNetworks (Transend), TasNetworks revenue proposals for the next regulatory control period*, July 2014. A copy is available at <http://www.aer.gov.au/node/23143>.

## 5 Constituent components and interrelationships

The NEL requires us to specify how the constituent components of our draft decision relate to each other and how we have taken those interrelationships into account in making our decision.<sup>45</sup> 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.<sup>46</sup>

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 overall 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. 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 it 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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<sup>45</sup> NEL, s. 16(c).

<sup>46</sup> 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 interrelationships impacting on our decision

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 these drivers on the efficient level of overall revenue for the 2015-19 regulatory control period. 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 investment environment has substantially improved since our previous decision. Our last decision for TasNetworks was made during the height of uncertainty surrounding the global financial crisis (GFC).<sup>47</sup> Since then perceptions of risk have subsided and interest rates have fallen, as evidenced by falling credit risk premiums. The Reserve Bank of Australia has also lowered its target cash rate. As a consequence, the lower cost of capital for debt and equity translate to lower financing costs necessary to attract efficient investment.
- Using our rate of return guideline as a starting point, we have assessed a rate of return that achieves the rate of return objective and the NEO and will allow TasNetworks to fund its network investment. This is lower than the cost of capital TasNetworks received in the 2009 decision and is largely consistent with TasNetworks' proposal.

### Regulatory asset base

- TasNetworks underspent its capex allowance for the 2009–14 regulatory control period. While its RAB in that period was based on its forecast capex, its opening RAB for this period will be based on its lower actual capex. This means that the opening RAB at 1 July 2014 is lower than was forecast at the last reset. All else being equal, this would generate lower future revenue requirements than expected at the end of the 2009–14 regulatory control period.

### Past capital expenditure

- The results of our annual benchmarking report show that TasNetworks' capital efficiency has been slowly, but steadily, decreasing over time. However, its overall expenditure efficiency is better than that of comparable TNSPs.
- TasNetworks made significant capex investments in 2009–14 (albeit less than forecast in our previous determination). This investment, in particular on its asset renewal program, has resulted in maintenance intensive assets being replaced with modern, less maintenance intensive assets. We would expect this to lead to reductions in repex and maintenance expenditure in 2014-19. Consistent with this, TasNetworks' proposal included a reduction in forecast capex of 52 per cent relative to its actual/estimated capex for 2009-14. As discussed below, it has since reduced its forecast capex even further.

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<sup>47</sup> Lehman Brothers filed for Chapter 11 bankruptcy protection on September 15, 2008. This is generally considered the date the GFC started. See <http://dm.epiq11.com/LBH/Project>.

## Demand

- System peak demand in Tasmania decreased on average by around 0.63 per cent per annum over the past five years. In addition, growth in peak demand is expected to be on average 1.18 per cent per annum in the 2014-19 period. These expectations indicate that only modest amounts of growth related expenditure will be required in the forthcoming period.
- In its proposal, TasNetworks proposed total capex of \$36.8 million, driven predominately by two projects. In August, after TasNetworks had submitted its proposal, AEMO published the results of an independent review of those projects which suggested they would not be required in the 2015-19 regulatory control period. TasNetworks, separately to the AEMO work, also provided further information to the AER in September which supported removal of these projects from its capex forecast. This has informed our draft decision on TasNetworks' forecast capex for 2014-19, which we consider is consistent with expected trends in demand over that period.

## Efficiency

- Our expectation is that, over time, a TNSP ought to be able to maintain efficient service levels while achieving ongoing improvements to its costs of providing those services. TasNetworks' proposal is consistent with that expectation.
- For example, TasNetworks has proposed a decrease in forecast opex of just under 12 per cent from its actual expenditure in the 2009–14 regulatory control period, which we have accepted in our draft decision. The proposal identifies forecast efficiency improvements of \$30 million (2013-14) over the regulatory control period. These improvements are attributed to reduced staffing levels, rationalisation of duplicate systems and productivity gains associated with the merger of Aurora and Transend, and improved ways of delivering services to customers.

Individually, each of these key drivers has a substantial impact on the constituent components of our decision. However, it is their cumulative impact that is particularly important. Together, they indicate a consistent picture. TasNetworks' efficient level of overall revenue during the 2015-19 regulatory control period should decrease substantially compared to the current regulatory control period, and consistent with its proposal. This is consistent with the overall revenue level deriving from the detailed analysis in our attachments and appendices, in which, for the most part, we have accepted TasNetworks' proposal.

## 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.<sup>48</sup>

Under the new framework we have turned our mind to the question of 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.<sup>49</sup> 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.<sup>50</sup> 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 that 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 and MRP), 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 TasNetworks with a reasonable opportunity to recover at least efficient costs.<sup>51</sup> We are satisfied this approach results in an overall decision that contributes to the achievement of the NEO to the greatest degree.

At a total revenue level, the difference between our draft decision and TasNetworks' proposal is small. We are satisfied, however, that our draft decision contributes to the achievement of the NEO to the greatest degree.

As figure 1-1 (above) illustrates, over the 2004-08 regulatory control period, there was a relatively steady trend in TasNetworks' revenue. The 2009-14 regulatory control period saw substantial increases in revenue. However, as discussed in section 5, we are now seeing a number of key drivers

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<sup>48</sup> NEL, s. 16(1)(d).

<sup>49</sup> NEL, s. 16(1)(d)

<sup>50</sup> Hansard, SA House of Assembly, 26 September 2013 p. 7173.

<sup>51</sup> NEL, s. 7A(2) and (6).

that indicate substantial revenue reductions are appropriate. In addition, there are several opportunities for TasNetworks to materially improve efficiency in how it invests in, operates and promotes use of its network. These drivers are recognised in TasNetworks' proposal. The derivation of TasNetworks' proposed overall revenue is, in most respects, consistent with what the key drivers above indicate is appropriate.

However, we are unable to conclude that TasNetworks' proposal would contribute to the achievement of the NEO to the greatest degree. This results in large part from new and better information provided by TasNetworks itself. As our attachments and appendices discuss in more detail, TasNetworks' proposed forecast capex does not reflect this new information and we agree with TasNetworks that it does not meet the capex criteria. We also consider that some other constituent components of TasNetworks' proposal do not fully comply with the NER requirements. A number of these decisions have an offsetting effect, so that the resulting difference between our draft decision and TasNetworks' proposal is small. However, absent these adjustments we consider TasNetworks' proposal cannot be said to contribute to the NEO to the greatest degree. With the benefit of these adjustments, our draft decision sets an overall revenue level consistent with the indications from the key drivers discussed in section 5.

As set out in section 4 we have undertaken a careful assessment of the information before us, including TasNetworks' proposal and submissions from stakeholders and the CCP. We are satisfied this approach has meant we are appropriately informed of stakeholders' views and have taken them into account in our draft decision. Submissions to the AER from the CCP and others also suggest a need for substantial revenue reductions relative to the current period, consistent with indications from the key drivers of efficient revenue as set out in section 5.

We are also satisfied, for the reasons set out in our attachments and appendices, 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.

Of the options available to us, we are satisfied that our draft decision strikes the better 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 TasNetworks provides a return sufficient to promote efficient investment, while incentivising TasNetworks to operate its network more efficiently. We are also satisfied that the overall revenue allowance will, to some extent, mitigate potential risks that consumers are unwilling or unable to efficiently use the network.

We acknowledge that our draft decision sets an overall revenue allowance for TasNetworks that is lower than in the 2009–14 regulatory control period. We consider this is appropriate, given the new information that has come to light and the key drivers of efficient revenue for the 2014-19 period. It is also consistent with trends that have tended to moderate the need for investment in the electricity network sector.



## 7 Total revenue requirements and impact on price

The total revenue cap represents our forecast of the efficient costs a prudent operator would incur in providing transmission network services for the 2015–19 regulatory control period.

### 7.1 Draft decision

Our draft decision on TasNetworks' total revenue cap over the 2015–19 regulatory control period is \$731.2 million (\$ nominal).<sup>52</sup> This is \$54.9 million (or 7 per cent) less than TasNetworks' revenue proposal. Table 7-1 shows our draft decision on TasNetworks' building block costs and unsmoothed revenues, and the resulting smoothed revenues. Attachments to our draft decision discuss 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 TasNetworks' proposed revenues (\$ million, nominal)**

	2014–15	2015–16	2016–17	2017–18	2018–19	Total
Return on capital	97.2	99.6	102.9	105.2	106.9	511.8
Regulatory depreciation <sup>a</sup>	17.9	21.4	24.6	24.9	26.1	115.0
Operating expenditure	45.1	45.6	47.0	48.4	49.1	235.2
Efficiency benefit sharing scheme (carryover amounts)	12.5	8.8	7.3	4.5	0.0	33.1
Net tax allowance	4.5	4.8	5.2	5.2	5.6	25.3
Annual building block revenue requirement (unsmoothed)	177.2	180.2	186.9	188.2	187.8	920.4
<b>Annual expected MAR (smoothed)</b>	<b>186.9</b>	<b>181.6</b>	<b>182.4</b>	<b>183.2</b>	<b>184.0</b>	<b>918.1</b>
X factor (%)	n/a <sup>b</sup>	n/a <sup>c</sup>	2.0% <sup>d</sup>	2.0% <sup>d</sup>	2.0% <sup>d</sup>	n/a

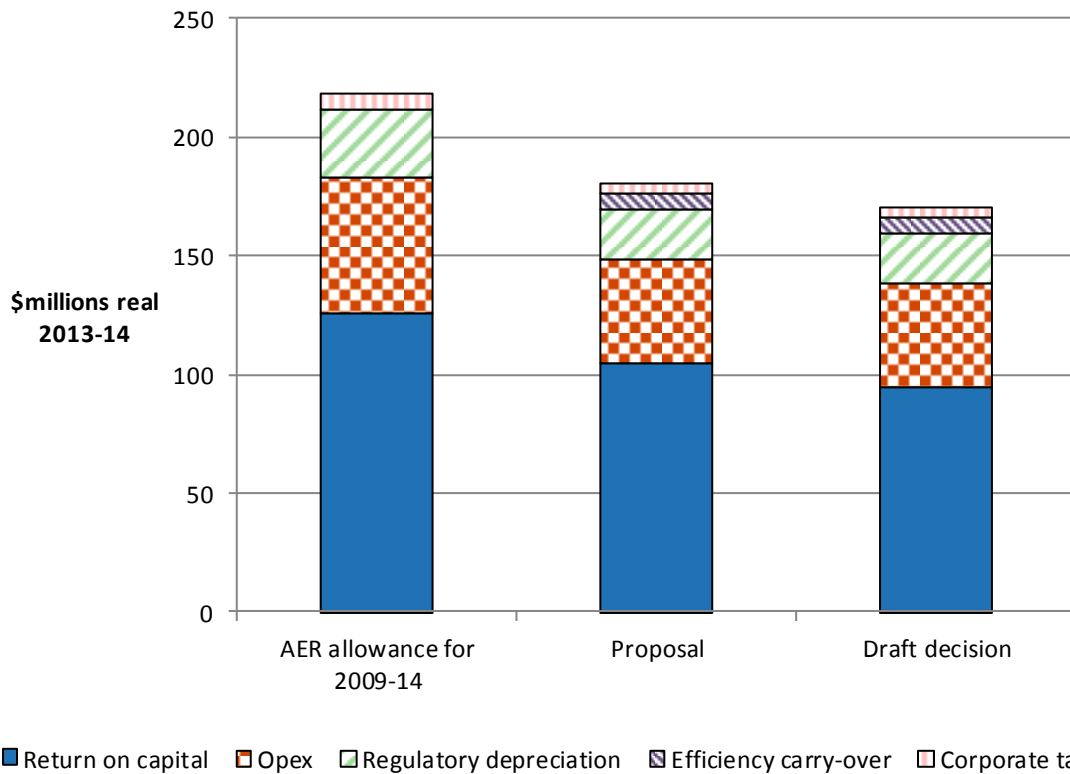
Source: AER analysis.

- (a) Regulatory depreciation is straight-line depreciation net of the inflation indexation on the opening RAB.
- (b) TasNetworks is not required to apply an X factor for 2014–15 because we set the 2014–15 MAR in this decision. We have set the 2014–15 MAR equal to TasNetworks' targeted revenue (\$186.9 million) for 2014–15. We note that TasNetworks applied a lower revenue than the placeholder MAR of \$205.1 million for 2014–15 pricing purposes. The MAR for 2014–15 (\$186.9 million) is around 26.4 per cent lower than the approved MAR (\$247.9 million) in the final year of the 2009–14 regulatory control period (2013–14) in real terms, or 24.6 per cent lower in nominal terms.
- (c) TasNetworks is not required to apply an X factor for 2015–16 because we set the 2015–16 MAR in this decision. The MAR for 2015–16 is around 5.2 per cent lower than the approved MAR for 2014–15 in real terms, or 2.9 per cent lower in nominal terms.
- (d) The X factor will be revised to reflect the annual return on debt update.

Figure 7-1 compares (on average) our draft decision on TasNetworks' building block costs against what was proposed by TasNetworks for the 2014–19 period and what we approved for the 2009–14 regulatory control period.

<sup>52</sup> This amount excludes the placeholder revenue for the transitional 2014–15 year.

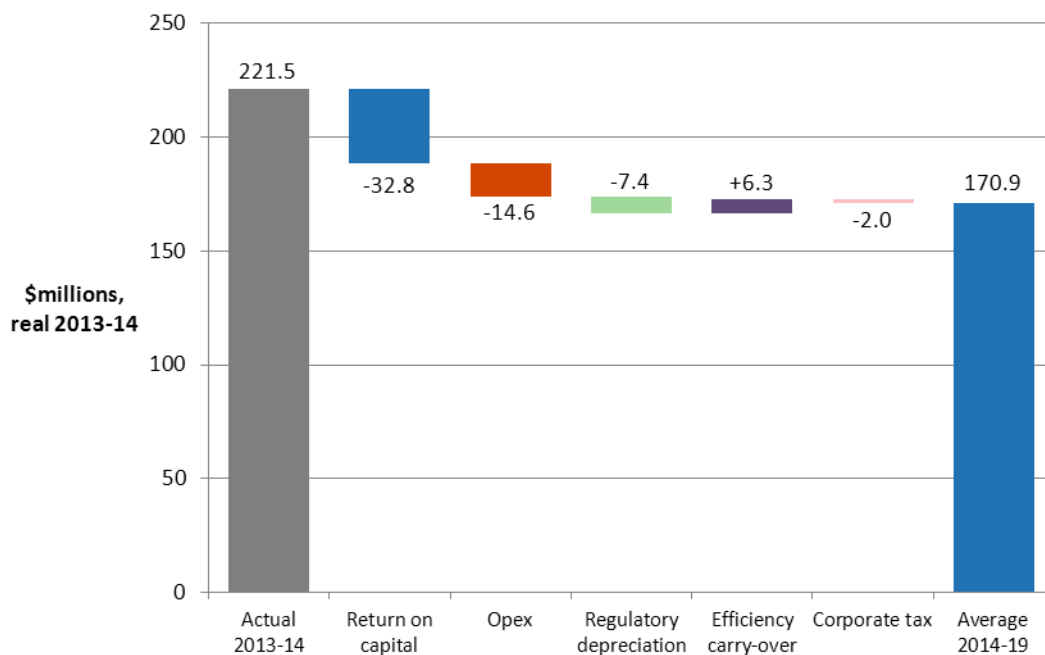
**Figure 7-1 AER's draft decision and TasNetworks' proposed annual building block revenue requirement (\$ million, 2013–14)**



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 2013–14 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 reduces the annual building block revenue requirement on average by about \$32.8 million.

**Figure 7-2 AER's draft decision on building block costs (\$ million, 2013–14)**

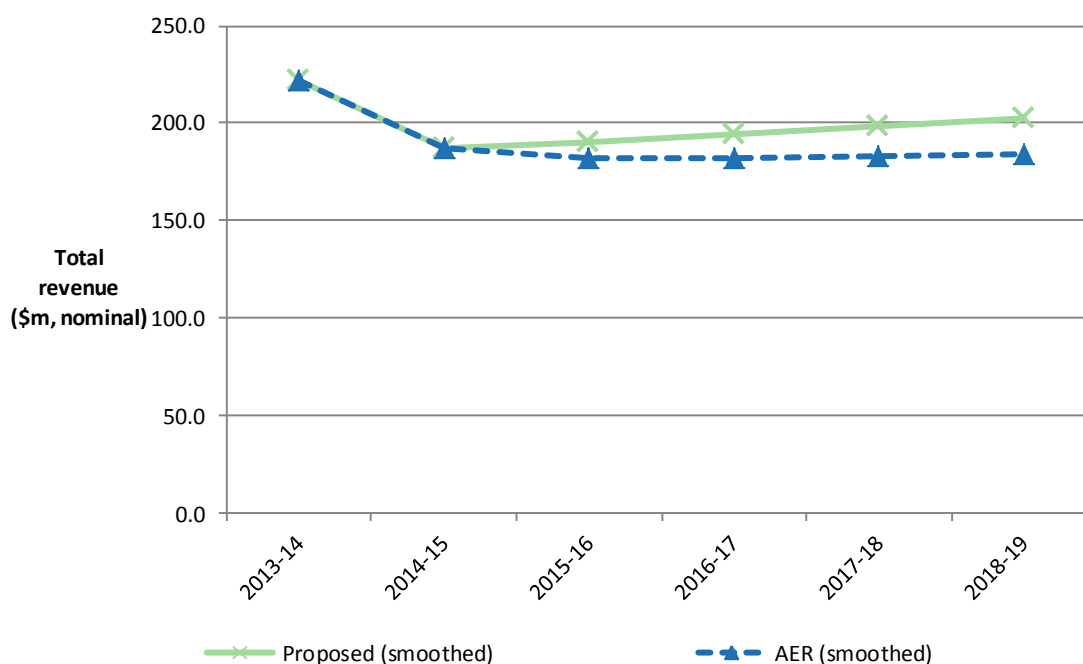


Source: AER analysis.

Notes: 'Actual 2013–14' is TasNetworks' latest estimate of actual revenue to be recovered 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 2009–14 regulatory control period.

Figure 7-3 compares our draft decision on TasNetworks' expected maximum allowed revenues (MARs) with TasNetworks' proposal for the 2014–19. The two lines both start from the transitional placeholder decision as this revenue was used as the basis from which prices for 2014–15 were determined and therefore any change would be relative to these transitional prices going forward. All other things being equal these smoothed MARs for the 2014–19 period represent what the service provider would target for pricing purposes.

**Figure 7-3 AER's draft decision on MAR compared with TasNetworks' proposed MAR for 2014–19 (\$ million, nominal)**



Source: AER analysis.

The smoothing we conducted to determine the MAR for each year also achieves the NER requirement for a true-up in relation to the transitional year of 2014–15. The placeholder revenue from the transitional decision for 2014–15 is used as a base from which the smoothing occurs. This means the MAR for 2014–15 matches what was targeted for pricing purposes for that year. The smoothing process requires us to equate the smoothed and unsmoothed revenues over the entire 2014–19 period in net present value terms. Any difference between the annual building block revenue requirement for 2014–15 now determined by us in this decision and the placeholder amount is trueed-up through this smoothing process. The difference is being effectively spread over the remaining four years of the 2014–19 period. Attachment 1 explains the smoothing process further.

## 7.2 Indicative impact of transmission charges on annual electricity bills in Tasmania

Our draft decision on TasNetworks' expected MAR ultimately affects the prices consumers pay for electricity. Since we regulate TasNetworks' prescribed transmission services under a revenue cap, changes in the consumption of electricity will affect the transmission charges ultimately paid by consumers. Further, transmission charges are just one component of a customer's total annual electricity bill.

Nonetheless, we can estimate the indicative effect of our draft decision on forecast average transmission charges in Tasmania by taking the expected MAR and dividing it by AEMO's forecast annual energy delivered for this region.<sup>53</sup> In Tasmania, transmission charges represent approximately 15 per cent of a customer's average annual electricity bill.<sup>54</sup> If we assume that our changes to transmission charges are passed through to end users, but that other components of the electricity bill

<sup>53</sup> AEMO, *National electricity forecasting report*, 2014, table 12.

<sup>54</sup> OTTER, *Comparison of 2014 Australian standing offer energy prices*, March 2014, p. 3.

(for example distribution, wholesale and retail energy costs) are held constant. we estimate our draft decision would result in a decrease in annual average electricity bills for residential and small business customers.

Table 7-2 shows the estimated impact of our draft decision over the 2014–19 period on the average residential and small business customer's electricity bills in Tasmania, compared with TasNetworks' proposal.

**Table 7-2 AER estimated impact of the draft decision for TasNetworks on the average annual electricity bills in Tasmania over 2014–19 (\$ nominal)**

	2013–14	2014–15	2015–16	2016–17	2017–18	2018–19
<b>TasNetworks proposal</b>						
Residential annual bill <sup>a</sup>	2256	2210	2215	2222	2229	2238
Annual change		–46 (–2.0%)	5 (0.2%)	7 (0.3%)	8 (0.3%)	8 (0.4%)
Small business annual bill <sup>b</sup>	3782	3705	3713	3724	3737	3751
Annual change		–77 (–2.0%)	8 (0.2%)	12 (0.3%)	13 (0.3%)	14 (0.4%)
<b>AER draft decision</b>						
Residential annual bill <sup>a</sup>	2256	2210	2201	2203	2206	2208
Annual change		–46 (–2.0%)	–10 (–0.4%)	2 (0.1%)	3 (0.1%)	3 (0.1%)
Small business annual bill <sup>b</sup>	3782	3705	3688	3692	3696	3701
Annual change		–77 (–2.0%)	–16 (–0.4%)	4 (0.1%)	4 (0.1%)	5 (0.1%)

Source: AER analysis; OTTER, *2013 Aurora Pay As You Go price comparison report (APAYG rates from 27 July 2013)*, August 2013; *Comparison of 2014 Australian standing offer energy prices*, March 2014. OTTER, *Typical electricity customers 2010–information paper*, September 2010, pp. 11–12. AER, [Energy Made Easy](#).

(a) The average annual electricity bill for Tasmania is based on a typical annual usage of approximately 8800 kWh in Tasmania. It reflects the weighted average of the typical regulated tariff customer's annual electricity bill and typical Aurora PAYG tariff customer's annual electricity bill as published by OTTER and the [Energy Made Easy](#) website. The weighting assumptions we have adopted are 85 per cent for regulated tariff customer bills and 15 per cent for Aurora PAYG tariff bills (source: OTTER, *2013 Aurora Pay As You Go price comparison report (APAYG rates from 27 July 2013)*, August 2013, p. 4.). We also incorporated the annual electricity bills of customers that are entitled to a concession. In Tasmania, one in three regulated tariff customers will receive a concession and about 47 per cent of Aurora PAYG customers will receive a concession (source: OTTER, *Comparison of 2014 Australian standing offer energy prices*, March 2014, p. 8; OTTER, *2013 Aurora Pay As You Go price comparison report (APAYG rates from 27 July 2013)*, August 2013, p. 4.).

(b) The weighted average annual electricity bill for small businesses in Tasmania is based on typical annual usage of 11 MWh in Tasmania and sourced from the [Energy Made Easy](#) website based on the annual consumptions of typical business customers using only tariff 22 (General) as published by OTTER.

## 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 TasNetworks of \$731.2 million (\$ nominal) for the 2015–19 regulatory control period we:

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

### 8.1 The building block approach

We have employed the building block approach, illustrated in figure 8-1 below, to determine TasNetworks' annual revenue requirement—that is, we based the annual revenue requirements on our estimate of the efficient costs that TasNetworks is likely to incur in providing transmission network services. The building block costs, illustrated in Figure 8-1, include:<sup>55</sup>

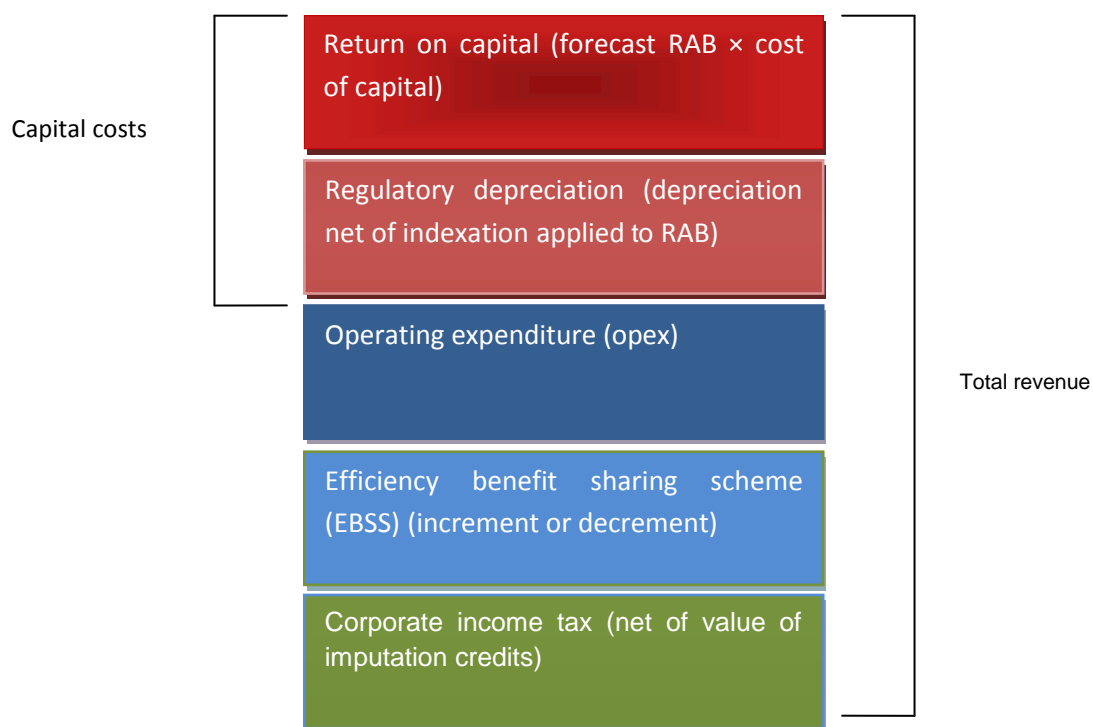
- indexation of the RAB
- a return on the RAB (return on capital)
- depreciation of the RAB (return of capital)
- forecast opex
- increments or decrements resulting from incentive schemes such as the efficiency benefit sharing scheme (EBSS)
- the estimated cost of corporate income tax.

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.

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<sup>55</sup> 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 TasNetworks' 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 TasNetworks earns a return on capital. Further, TasNetworks 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 TasNetworks' proposed opening value for the RAB for each year of the 2014–19 regulatory control period.<sup>56</sup> Our assessment involved:

- rolling forward the opening RAB at 1 July 2009 to determine the closing RAB at 30 June 2014
- using our draft decision on forecast depreciation, capex, disposals and inflation for the 2014–19 regulatory control period to roll forward TasNetworks' forecast RAB for each year of that period.

### 8.2.1 Draft decision

Our draft decision is to set TasNetworks' opening RAB at \$1412.2 million at 1 July 2014. We forecast a closing RAB at 30 June 2019 of \$1566.9 million.

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 2019 for TasNetworks.

<sup>56</sup> NER, cl. 6A.6.1 and schedule 6A.2

Table 8-1 and Table 8-2 set out our draft decisions on the roll forward of the RAB values for TasNetworks' 2009–14 regulatory control period and the forecast RAB values for TasNetworks' 2014–19 regulatory control period respectively.

**Table 8-1 AER's draft decision on TasNetworks' RAB for the 2009–14 regulatory control period (\$ million, nominal)**

	2009–10	2010–11	2011–12	2012–13	2013–14 <sup>a</sup>
Opening RAB	951.4	1 068.4	1 170.7	1 270.5	1 335.0
Capital expenditure <sup>b</sup>	139.3	121.0	131.0	89.0	82.6
CPI indexation on opening RAB	27.5	35.6	18.6	31.8	39.1
Straight-line depreciation <sup>c</sup>	–49.8	–54.4	–49.7	–56.3	–62.4
Closing RAB	1068.4	1170.7	1270.5	1335.0	1394.4
Difference between estimated and actual capex (1 July 2008 to 30 June 2009) <sup>d</sup>					–12.5
Return on difference for 2008–09 capex <sup>d</sup>					–7.8
Difference between estimated and actual assets under construction as at 30 June 2009 <sup>d</sup>					24.1
Return on difference (assets under construction as at 30 June 2009) <sup>d</sup>					15.1
Assets removed from prescribed services					–1.1
Opening RAB as at 1 July 2014					1412.2

Source: AER analysis.

(a) Based on estimated capex. We will update the RAB roll forward for actual capex in the final decision.

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

(c) Adjusted for actual CPI. Based on as-commissioned capex.

(d) This is the true-up adjustment relating to the 2008–09 estimates (final year of previous regulatory control period) used in the 2009 determination to account for the difference between those estimates and actuals that are now available.

**Table 8-2 AER's draft decision on TasNetworks' RAB for the 2014–19 period (\$ million, nominal)**

	2014–15	2015–16	2016–17	2017–18	2018–19
Opening RAB	1412.2	1447.3	1495.0	1528.5	1553.8
Capital expenditure <sup>a</sup>	53.0	69.2	58.0	50.2	39.3
Inflation indexation on opening RAB	35.3	36.2	37.4	38.2	38.8
Straight-line depreciation <sup>b</sup>	–53.2	–57.6	–62.0	–63.1	–65.0



	2014–15	2015–16	2016–17	2017–18	2018–19
Closing RAB	1447.3	1495.0	1528.5	1553.8	1566.9

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.
- (b) Based on as-commissioned capex.

## 8.2.2 Summary of analysis and reasons

We do not accept TasNetworks' proposed opening RAB of \$1412.9 million as at 1 July 2014. We determine an opening RAB of \$1412.2 million as at 1 July 2014. This is because we amended TasNetworks' proposed actual capex values for 2008 to 2014 to reverse the movements in provisions. This reduced TasNetworks' proposed opening RAB by \$0.7 million (or 0.05 per cent).

We forecast TasNetworks' closing RAB to be \$1566.9 million at 30 June 2019, which represents a 2.3 per cent reduction to TasNetworks' proposal. The main reasons for this reduction are our adjustments to:

- forecast capex (attachment 6)
- the opening RAB at 1 July 2014 (attachment 2)
- forecast depreciation (attachment 5).

Details of our approach in 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 network service provider (NSP) 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).<sup>57</sup>

### 8.3.1 Draft decision

We are satisfied that an allowed rate of return of 6.88 per cent (nominal vanilla<sup>58</sup>), subject to updating in our final decision, achieves the allowed rate of return objective.<sup>59</sup> We consider our proposed (indicative) 6.88 per cent rate of return better meets the allowed rate of return objective than TasNetworks' proposed (indicative) 7.58 per cent rate of return..

The allowed rate of return of 6.88 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.<sup>60</sup>

TasNetworks' proposed 7.58 per cent rate of return was submitted as an indicative rate only, and was intended to be updated in the manner that we have done for this draft decision. The differences

<sup>57</sup> NER, cl.6A.6.2(a).

<sup>58</sup> The nominal vanilla WACC combines a post-tax return on equity and pre-tax return on debt, for consistency with other building blocks.

<sup>59</sup> NER, cl.6A.6.2(b).

<sup>60</sup> NER, cl.6A.6.2(i)(2).

between the underlying methodology proposed by TasNetworks for the rate of return, and our draft decision methodology, are relatively minimal and are described below. Overall, the main difference is a result of updating the rate of return for more recent market data as was always intended.

Our estimate also differs from TasNetworks' proposal due to the differing methods of using third party service providers' debt yields data to estimate the return on debt. We proposed in the guideline to use an independent third party data service provider but did not specify the service provider. TasNetworks proposed that we use only the Reserve Bank of Australia (RBA) data. Our draft decision is to use an average of the Bloomberg (BVAL curve) and the RBA data. We have also made an extrapolation adjustment to the RBA data not proposed by TasNetworks. The combined effect of these changes on the return on debt is minimal.

As noted, most of the difference in the rate of return is due to us updating the rate of return for more recent market data, consistent with TasNetworks' proposal. Because the return on debt is to be updated annually, the difference between the return on debt for future regulatory years using TasNetworks' and our draft decision methodology is currently unknown, and will depend on the path of future interest rates. However, because of the transitional arrangements we have adopted, the return on debt in these future regulatory years has a lesser impact on TasNetworks' revenue than the return on debt for regulatory year 2014-15 (where the difference in outcome between TasNetworks' and our methodology is already known and is relatively minimal).

Our draft decision is set out in Table 8-3.

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

	2009–14 AER decision	2015–19 TasNetworks proposal <sup>(a)</sup>	2015–19 AER draft decision
Nominal risk free rate (cost of equity)	5.80%	4.11% <sup>(b)</sup>	3.55% <sup>(c)</sup>
Equity risk premium	6.0%	4.55% <sup>(d)</sup>	4.55%
MRP	6.0%	6.5%	6.5%
Equity beta	1.0	0.7	0.7
Gearing ratio	60.0%	60.0%	60.0%
Inflation forecast	2.47%	2.52%	2.50%
Nominal post-tax return on equity	11.8%	8.7%	8.1%
Nominal pre-tax return on debt	8.81%	6.84%	6.07% <sup>(e)</sup>
<b>Nominal vanilla WACC</b>	<b>10.00%</b>	<b>7.58%</b>	<b>6.88%</b>

Source: AER analysis; TasNetworks, *Revenue proposal*, May 2014; AER, *Statement of updates for Transend's final transmission determination*, October 2009.

(a) These values are from TasNetworks' proposed PTRM. TasNetworks has proposed to adopt the AER Guideline approach to estimating the rate of return. See: TasNetworks, *Revenue proposal*, May 2014, p. 108.

(b) This is a prevailing indicative risk free rate based on an averaging period from 28 February to 30 April 2014. The risk free rate is to be updated for the final decision. See: TasNetworks, *Revenue proposal*, May 2014, p. 108.

(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.

(d) TasNetworks' proposed return on equity is 8.66 per cent to two decimal places. Therefore, its proposed equity risk premium is 4.55 per cent (8.66 – 4.11 = 4.55). However, TasNetworks proposed its return on equity estimate to one decimal place, in accordance with the Guideline. See: AER, *Rate of return guideline*, December 2013, p. 17.

(e) This return on debt estimate, subject to our final decision, will be used to update the revenues we previously determined for the 2014–15 (transitional) regulatory year.

## 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.<sup>61</sup> 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.<sup>62</sup> It should be noted that TasNetworks' proposal is consistent with our approach discussed in this section.

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).<sup>63</sup> The Guideline was designed through extensive consultation and included effective and inclusive consumer participation.<sup>64</sup> We agree with stakeholders that certainty and predictability of outcomes in rate of return issues could materially benefit the long term interest of consumers.<sup>65</sup>

### 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.<sup>66</sup>

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

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<sup>61</sup> NER, cl.6A.6.2(b).

<sup>62</sup> 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.

<sup>63</sup> NER, cl.6A.6.2(m).

<sup>64</sup> <http://www.aer.gov.au/node/18859>

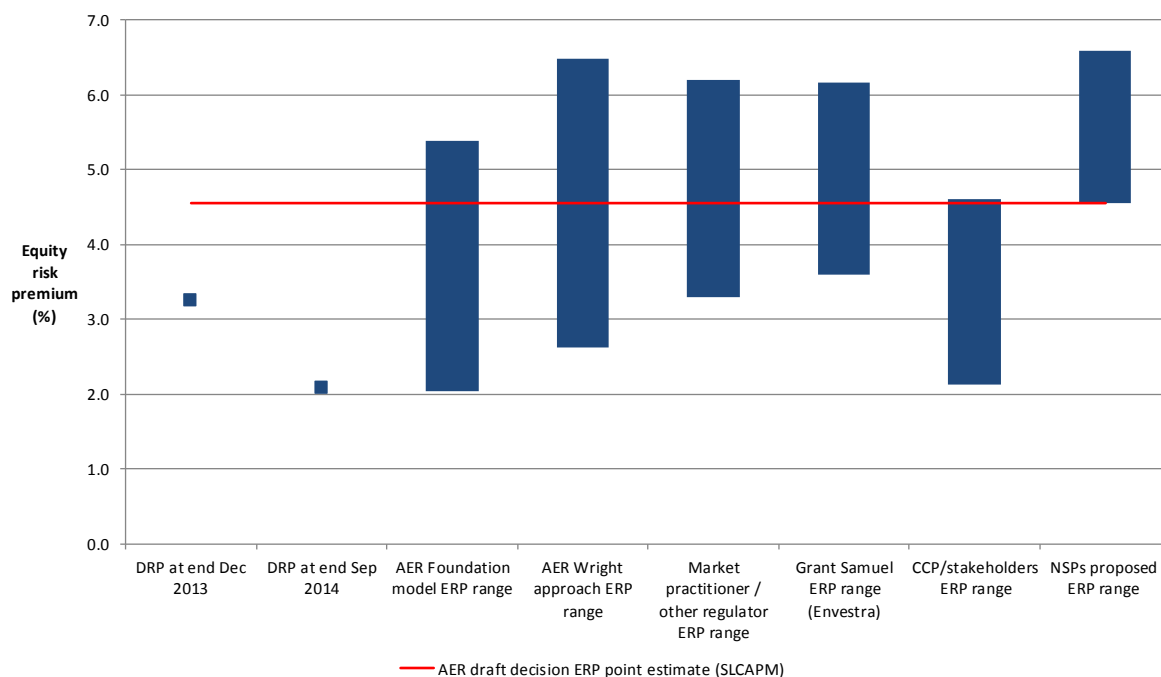
<sup>65</sup> ENA, *Response to the draft rate of return guideline of the AER*, 11 October 2013, p.1, AER, *Explanatory statement to the rate of return guideline (appendices)*, December 2013, Appendix I, Table I.4, pp.185–186.

<sup>66</sup> 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.

free rate at a given time.<sup>67</sup> 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.<sup>68</sup>

**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 using the trailing average approach. This is a change from 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.

<sup>67</sup> 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).

<sup>68</sup> To calculate this, we use the RBA's published yields on 10 year BBB non-financial corporate bonds, specifically, the spread to CGS yields (as at 30 September). 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.

We assessed the trailing average approach relative to the other approaches a regulator can apply to estimate the return on debt under the rules.<sup>69</sup> 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.<sup>70</sup> 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 2015–2019 regulatory control 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 what an efficient benchmark entity would hold as a staggered portfolio of long term (10 year) debt. However, there is no agreement with some NSPs on how we should move from the current approach to the trailing average. TasNetworks, however, adopted both the trailing average approach and our transitional arrangements.

We adopt a 10 year term for the return on debt with 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.<sup>71</sup> 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.<sup>72</sup> 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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<sup>69</sup> NER, cl.6A.6.2(j).

<sup>70</sup> NER, cl.6A.6.2(h).

<sup>71</sup> NER clause 6.5.2(l), NER clause 6A.6.2(l), NGR r. 87(12).

<sup>72</sup> *Income Tax Assessment Act 1997*, parts 3–6.

the 'value of imputation credits'.<sup>73</sup> 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

Our draft decision is to adopt a value of imputation credits of 0.4. TasNetworks proposed a value of imputation credits of 0.5, consistent with the value we 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. Accordingly, in this draft decision, we have substituted TasNetworks' proposed 0.5 value for a 0.4 value of imputation credits. If other adjustments in this draft decision had not been made, this would have resulted in higher revenues than what TasNetworks had forecast. However, its impact has been offset by those adjustments.

#### 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 from Associate professor John Handley of the University of Melbourne and Associate professor Martin Lally of Victoria University of Wellington.<sup>74</sup>

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<sup>73</sup> 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.

Overall, the evidence on the distribution rate and the utilisation rate suggests a reasonable estimate of the value of imputation credits is within the range 0.3 to 0.5. From this range, we choose a value of 0.4 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.<sup>75</sup> The equity ownership approach was Lally's second preference after his recommendation for a utilisation rate of 1.<sup>76</sup>
- It is within the 'preferred' range for the value of imputation credits in Handley's recent advice.<sup>77</sup>
- 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.<sup>78</sup>

## 8.5 Regulatory depreciation (return of capital)

We use regulatory depreciation to model nominal asset values over the 2014–19 period and set a depreciation allowance as part of the overall revenue allowance for TasNetworks. The regulatory depreciation allowance is the net total of the straight-line depreciation (negative) amount and the (positive) amount from indexation of the RAB.

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<sup>74</sup> 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.

<sup>75</sup> J. Handley, *Report prepared for the Australian Energy Regulator: Advice on the value of imputation credits*, 29 September 2014, p.31.

<sup>76</sup> 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).

<sup>77</sup> J. Handley, *Report prepared for the Australian Energy Regulator: Advice on the value of imputation credits*, 29 September 2014, p.3.

<sup>78</sup> J. Handley, *Report prepared for the Australian Energy Regulator: Advice on the value of imputation credits*, 29 September 2014, p.32.



We have to decide whether to approve the depreciation schedules submitted by TasNetworks setting out its proposed allowance. If we do not approve TasNetworks' depreciation schedules, we must determine alternative depreciation schedules as set out in the NER.<sup>79</sup>

Attachment 5 sets out our detailed reasons for our draft decision on TasNetworks' regulatory depreciation allowance and depreciation schedules.

### 8.5.1 Draft decision

Our draft decision is to determine alternative depreciation schedules, and hence, the depreciation allowance, to apply to TasNetworks.<sup>80</sup> Table 8-4 sets out our draft decision on TasNetworks' depreciation allowance for the 2014–19 period. Our draft decision sets the allowance at \$115.0 million (\$ nominal), 1.7 per cent more than the allowance TasNetworks proposed.

**Table 8-4 AER's draft decision on TasNetworks' depreciation allowance for the 2014–19 period**

	2014–15	2015–16	2016–17	2017–18	2018–19	Total
Straight-line depreciation	53.2	57.6	62.0	63.1	65.0	300.9
Less: inflation indexation on opening RAB	35.3	36.2	37.4	38.2	38.8	185.9
Regulatory depreciation	17.9	21.4	24.6	24.9	26.1	115.0

Source: AER analysis.

### 8.5.2 Summary of analysis and reasons

We do not accept TasNetworks' proposed regulatory depreciation allowance of \$113.1 million (\$ nominal) for the 2014–19 period. Instead, for the following reasons, we determine a regulatory depreciation allowance of \$115.0 million (\$ nominal):

- We accept TasNetworks' proposed straight-line method, and standard asset lives used to calculate the regulatory depreciation allowance. We consider that TasNetworks' proposed standard asset lives are consistent with those approved at the 2009–14 transmission determination and reflect the nature and economic lives of the assets.<sup>81</sup>
- We accept TasNetworks' proposed weighted average method to calculate the remaining asset lives as at 1 July 2014. In accepting the weighted average method, we have updated TasNetworks' remaining asset lives as at 1 July 2014 to reflect our adjustments to the RAB in the roll forward model (RFM), as discussed in attachment 2.
- We do not accept other components of TasNetworks' proposal—for example, the forecast capex (attachment 6), the opening RAB value (attachment 2) and forecast inflation rate (attachment 3). In particular, the lower forecast inflation rate used in this draft decision means the resulting regulatory depreciation allowance (which nets out the inflation indexation on the opening RAB) is higher than proposed.

<sup>79</sup> NER, cl. 6.12.1(8) 6A.6.3(b)

<sup>80</sup> NER, cl. 6A.6.3(b)

<sup>81</sup> NER, clause 6A.6.3(b).



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 TasNetworks' total revenue requirement.

### 8.6.1 Draft decision

We are not satisfied that TasNetworks' proposed total forecast capex of \$275.9 million (\$2013–14) reasonably reflects the capex criteria. Our substitute estimate of TasNetworks' total forecast capex for the 2014–2019 period, which we are satisfied reasonably reflects the capex criteria, is \$246.4 million (\$2013–14). This substitute estimate, set out in Table 8-5, was informed by new information submitted by TasNetworks in September 2014.

**Table 8-5 Our draft decision on TasNetworks' total forecast capex (\$ million 2013–14)**

	2014–15	2015–16	2016–17	2017–18	2018-19	Total
TasNetworks' proposal	51.0	66.1	59.9	53.7	45.3	275.9
AER draft decision	50.6	64.5	52.8	44.5	34.0	246.4
Difference	-0.4	-1.6	-7.1	-9.2	-11.3	-29.5
Percentage difference (%)	0.8	2.4	11.9	17.1%	24.5	10.7

Source: TasNetworks, Revenue Proposal; AER analysis

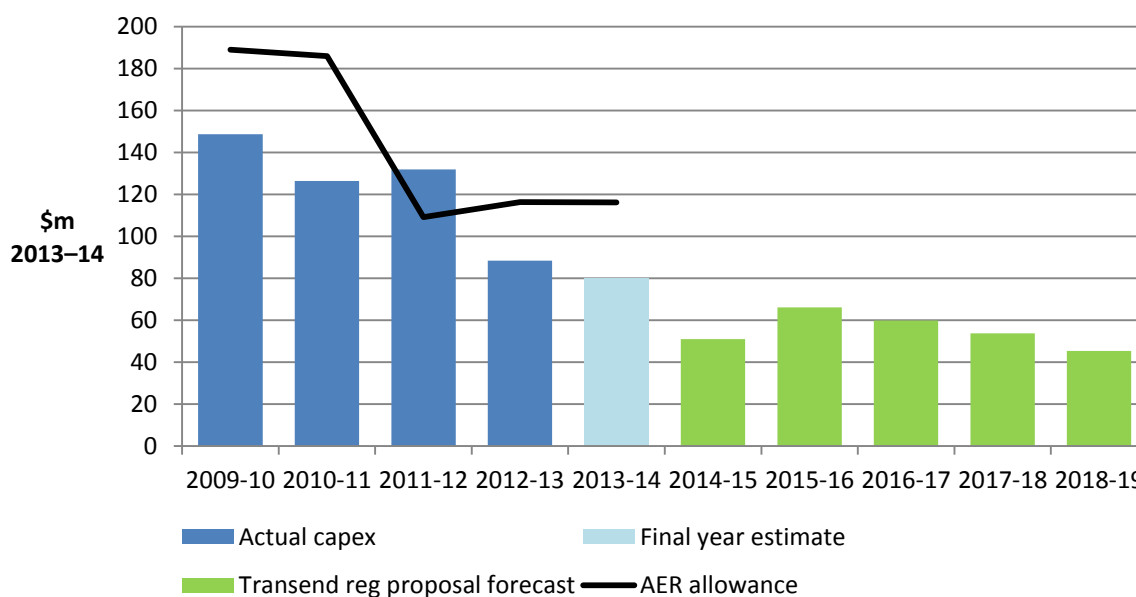
Note: Numbers may not total due to rounding

### 8.6.2 Comparison of historical and forecast capital expenditure

Figure 8-2 shows the reduction between TasNetworks' proposal for the 2014–2019 period and the actual capex that it spent during the 2009–2014 regulatory control period. According to TasNetworks, this proposed reduction is attributable to a reduced need for augmentation expenditure due to weak demand growth, and the conclusion of significant asset renewal phase in the previous period.<sup>82</sup>

<sup>82</sup> TasNetworks, Revenue Proposal, pp. 4-6.

**Figure 8-2 TasNetworks' capital expenditure**



Source: TasNetworks revenue proposal, AER analysis

### 8.6.3 Summary of analysis and reasons

TasNetworks' proposed total forecast capex of \$275.9 million (\$2013–14). Its proposal was largely consistent with the estimate of total forecast capex produced by our own assessment. The exception to this finding relates to growth related capex.

This proposed forecast included \$36.8 million for growth related capex driven primarily by two individual projects: the Waddamana–Palmerston 220 kV security augmentation project, and the Newton–Queenstown security augmentation project. Based on updated information, AEMO and TasNetworks have both submitted that these projects could be prudently deferred until after the 2014-19 period. We accept that these projects are unlikely to be required in the period covered by this decision. TasNetworks also provided suggested revised forecasts of augex and repex to reflect the deferral of the two augmentation projects from the 2014-19 period. Our substitute estimate was informed by these revisions.

The result is a \$35.2 million reduction in TasNetworks' proposed augex (to \$1.6 million), and a corresponding upwards revision to TasNetworks proposed forecast repex (by \$5.6 million) to replace a number of aging assets that would have otherwise been replaced as part of the augmentation projects.

## 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 TasNetworks is likely to require during the 2014–19 period for the efficient operation of its network.

### 8.7.1 Draft decision

We are satisfied that TasNetworks' total opex forecast reasonably reflects the opex criteria.<sup>83</sup> Table 8-6 shows our draft decision, which accepts TasNetworks' proposal. This includes the 2014-15 transitional regulatory control period.

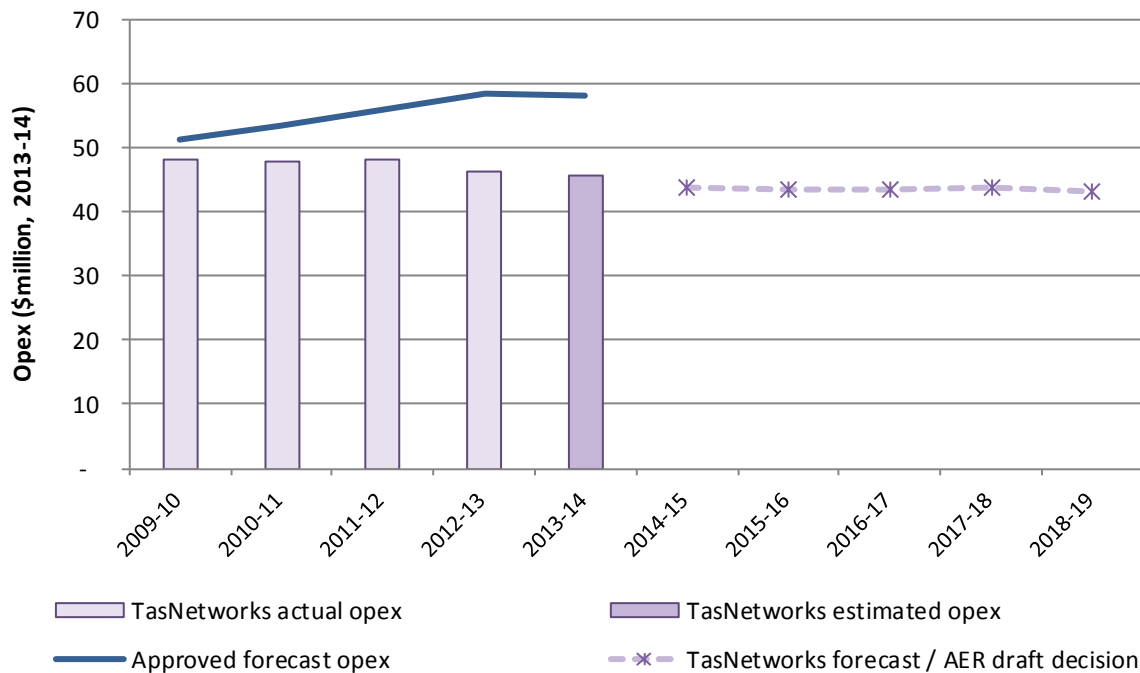
**Table 8-6 TasNetworks' proposal compared to our draft decision on total opex (\$ million 2013–14)**

	2014–15	2015–16	2016–17	2017–18	2018–19	Total
TasNetworks' proposal	44.0	43.4	43.6	43.9	43.4	218.3
AER draft decision	44.0	43.4	43.6	43.9	43.4	218.3

Source: TasNetworks, proposal; AER analysis.  
 Note: Includes debt raising costs.

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

**Figure 8-3 AER draft decision compared to TasNetworks' past and proposed opex (\$million, 2013-14)**



Note: Excludes network support and debt raising costs.  
 Source: AER analysis.

### 8.7.2 Summary of analysis and reasons

TasNetworks' proposed opex is 11.8 per cent lower than actual opex over the 2009–14 period. The decrease in TasNetworks' proposed opex is largely attributed to the recent merger of Transend with Aurora, which results in synergies that enable (the combined entity) TasNetworks to rationalise

<sup>83</sup> NER, cl. 6A.6.6(c)

functions and systems. TasNetworks also proposed an efficiency target of 0.5 per cent per year in real terms on its controllable opex.

We consider that TasNetworks' proposed total forecast opex reasonably reflects the opex criteria for the reasons outlined in attachment 7. To assess TasNetworks' proposal we developed our own estimate of total forecast opex based on the methodology set out in our Expenditure Forecast Assessment Guideline. We then assessed TasNetworks' opex forecast at an overall level in the context of the NER. Our forecast is based on taking an efficient base year of opex from the current regulatory control period, and adding any efficient costs for changes in inputs, outputs and forecast productivity over the regulatory control period. We also add step changes to forecast opex for any other efficient expenditure that is not captured elsewhere in our guideline opex forecasting approach. Our estimate of total forecast opex is consistent with TasNetworks' forecast at a total level.

## 8.8 Corporate income tax

The estimated cost of corporate income tax contributes to our determination of the total revenue cap for TasNetworks over the 2014–19 period. An allowance for corporate income tax enables TasNetworks to recover the costs associated with the estimated corporate income tax payable during that period. Attachment 8 sets out our details reasons for our draft decision on TasNetworks' estimated cost of corporate income tax.

### 8.8.1 Draft decision

We do not accept TasNetworks' proposed cost of corporate income tax allowance of \$23.3 million (\$ nominal) for the 2014–19 period. Instead, we determine a cost of corporate income tax allowance of \$25.3 million (\$ nominal) for TasNetworks. Table 8-7 sets out our draft decision on TasNetworks' corporate income tax allowance for the 2014–19 period. Our draft decision is 8.6 per cent more than the allowance TasNetworks proposed.

**Table 8-7 AER's draft decision on TasNetworks' cost of corporate income tax allowance for the 2014–19 period (\$ million, nominal)**

	2014–15	2015–16	2016–17	2017–18	2018–19	Total
Tax payable	7.4	8.0	8.7	8.7	9.4	42.2
Less: value of imputation credits	3.0	3.2	3.5	3.5	3.7	16.9
Net corporate income tax allowance	4.5	4.8	5.2	5.2	5.6	25.3

Source: AER analysis.

### 8.8.2 Summary of analysis and reasons

Our draft decision reflects our amendments to some of TasNetworks' proposed inputs for forecasting the cost of corporate income tax such as the opening tax asset base and the remaining tax asset lives. It also reflects our draft decision on the value of imputation credits—gamma—discussed in attachment 4. Our draft decision reflects changes to other building block costs 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.

## 9 Incentive schemes

### 9.1 Efficiency benefit sharing scheme

The efficiency benefit sharing scheme (EBSS) provides an additional incentive for service providers to pursue efficiency improvements in opex.

To encourage a service provider to become more efficient it is allowed to keep any difference between its approved forecast and its actual opex during a regulatory control period. 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 will be the base year of the following regulatory control period in order to receive a higher opex allowance in that period.<sup>84</sup>

#### 9.1.1 Draft decision and reasons for decision

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

During the 2009–14 regulatory control period TasNetworks operated under the EBSS released in September 2007 for TNSPs (version one of the EBSS).<sup>85</sup> Our draft decision is to apply EBSS rewards of \$31.4 million (real 2013–14) from the application of the EBSS during the 2009–14 regulatory control period.

The difference between our draft decision amount and TasNetworks' proposed amount is outlined in Table 9-1.

**Table 9-1 AER's draft decision and TasNetworks' proposed EBSS carryovers (\$ million, 2013–14)**

	2014–15	2015–16	2016–17	2017–18	2018–19	Total
TasNetworks' proposed carryover	11.4	9.6	6.4	5.0	0.0	32.3
AER's proposed carryover	12.2	8.4	6.7	4.1	0.0	31.4
Difference	0.8	-1.2	0.3	-0.9	0.0	-0.9

Source: AER analysis

The difference between our draft decision EBSS carryover amounts and TasNetworks' proposal reflects:

- An adjustment to TasNetworks' actual opex in 2009–14 to remove reported opex on superannuation. These costs were excluded from the operation of the EBSS during the 2009–14 regulatory control period.
- An adjustment to TasNetworks' actual opex for movements in provisions. Provisions are accounting adjustments which reflect estimates of future costs a business expects to incur. They

<sup>84</sup> AER, *Final decision, Efficiency benefit sharing scheme for the ACT and NSW 2009 distribution determinations*, February 2008, p. 5.

<sup>85</sup> AER, *Electricity transmission network service providers: Efficiency benefit sharing scheme*, September 2007.

are not actual costs. We do not consider estimates of future costs should be subject to the EBSS. To reward or penalise a service provider for changes in provisions would reward or penalise it for changes in assumptions, not efficiency improvements. This would be contrary to the aims of the EBSS under the NER.

## Application of the EBSS during the 2015–19 regulatory control period

We propose to apply version 2 of the EBSS to TasNetworks during the 2015–19 regulatory control period. We consider the EBSS is needed to:

- continue to encourage TasNetworks to pursue efficiency improvements in opex, and
- to discourage TasNetworks from incurring opex to try and influence its opex forecasts in the regulatory period beginning in 2019.

Of the exclusions TasNetworks proposed, we will exclude debt raising costs, network support and self-insurance costs from the EBSS. We will also exclude expenditure on network capability projects, which are funded through the Service Target Performance Incentive Scheme (STPIS) rather than through opex. We do not accept TasNetworks' proposed exclusion of insurance premiums.

## 9.2 Capital expenditure sharing scheme

The capital expenditure sharing scheme (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 costs of an underspend or overspend, while consumers retain 70 per cent. 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 TasNetworks in the 2015–19 regulatory control period.<sup>86</sup>

### 9.2.2 Summary of analysis and reasons

We are satisfied with TasNetworks' proposal to apply the CESS as set out in the capex incentives guideline.

### 9.2.3 Service target performance incentive scheme (STPIS)

The STPIS has three components:

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<sup>86</sup> AER, *Capex incentive guideline*, Nov 2013, pp. 5–9

- 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 funds and incentivises the TNSP to identify and implement incremental changes that would improve the capability of the network when it is most needed.

Attachment 11 sets out our detailed reasons for our draft decision on the STPIS.

## 9.2.4 Draft decision

Version 4.1 of the STPIS will apply to TasNetworks for the 2015–19 regulatory control period.

### Service component

We accept TasNetworks' proposed performance targets for the service component.<sup>87</sup> However, we do not accept TasNetworks' proposed caps and collars. Table 11.1 in Attachment 11 sets out our draft decision on TasNetworks' service component parameter values.

### Market impact component

While we were not required to make a formal decision on a market impact parameter performance target, we did audit and adjust TasNetworks' 2011, 2012 and 2013 performance data which was submitted as part of TasNetworks' revenue proposal. The average performance over these three years is used to calculate TasNetworks' 2014 market impact performance target which we assessed as 1318 dispatch intervals.<sup>88</sup>

### Network capability component

We do not accept TasNetworks' network capability incentive parameter action plan (NCIPAP). Instead, we accept a total of 18 priority projects proposed by TasNetworks, which equate to 1 per cent of TasNetworks' proposed MAR. Table 11.2 in Attachment 11 sets out our draft decision on TasNetworks' proposed priority projects, total costs and project ranking.

## 9.2.5 Summary of analysis and reasons

### Service component

We do not accept TasNetworks' proposed caps and collars as they do not comply with the requirements of clause 3.2(e) of the STPIS as the values are not based on a sound methodology. We applied our principles based approach to test the reasonableness of TasNetworks' proposed caps and collars. Our preferred approach results in caps and collars that provide a materially stronger incentive for the TNSP to improve and maintain service performance. This is consistent with the approach that we applied to SP AusNet in 2013 and is a conceptually sound method

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<sup>87</sup> TasNetworks noted its Reset RIN templates submitted on 2 June 2014 included incorrect data for the Material failure of SCADA parameter, which had impact on the proposed target, cap and collar. It submitted revised data on 17 July 2014. We accepted the revised data and set the performance targets, caps and collars based on the revised data.

<sup>88</sup> Regarding the target for the last half of 2014, we pro-rate the performance by measuring the average 2013/2014 performance against the average 2011/2012/2013 target and then multiplying by 0.5.

## 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 2015–19 regulatory control period. The target for the 2015 calendar year, for example, will be an average of TasNetworks' 2012, 2013 and 2014 market impact performance, while actual performance in 2015 will be measured as an average of its 2014 and 2015 performance.

We audited TasNetworks' 2011, 2012 and 2013 performance and averaged the performance over those three years to calculate TasNetworks' 2014 performance target. TasNetworks' 2011 performance remained at 729 dispatch intervals, however, we adjusted its 2012 performance from 1406 to 1429 dispatch intervals and its 2013 performance from 1787 to 1795 dispatch intervals. The reasons for these adjustments are set out in Table 11.6 of Attachment 11. Consequently, TasNetworks' market impact performance target for 2014 is 1318 dispatch intervals.<sup>89</sup>

## Network capability component

TasNetworks' proposed priority projects and priority project improvement targets do not comply with the requirements in clause 5.2 of the STPIS. Specifically, TasNetworks' proposed total expenditure on its priority projects is greater than 1 per cent of MAR proposed in its regulatory proposal. We have therefore removed seven proposed projects. Of the seven projects removed, two do not improve network capability and these were already reflected in TasNetworks' base year operating expenditure. We also removed an additional five projects according to AEMO's project ranking. Those projects have the lowest project ranking and the longest payback period, and therefore the lowest value for money provided for electricity customers.<sup>90</sup>

We accepted 18 priority projects proposed by TasNetworks, which equate to 1 per cent of TasNetworks' proposed MAR. We note that TasNetworks has worked with AEMO to develop a ranking of the proposed network capability projects. Based on AEMO's recommendation and our review, we consider those 18 priority projects and priority project improvement targets are consistent with the STPIS requirements and will result in a material benefit.<sup>91</sup>

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<sup>89</sup> Regarding the target for the last half of 2014, we pro-rate the performance by measuring the average 2013/2014 performance against the average 2011/2012/2013 target and then multiplying by 0.5.

<sup>90</sup> AEMO, *AEMO endorsement of Transend Network Capability Incentive Parameter Action Plan (NCIPAP) for 1 July 2014 – 30 June 2019*, 4 February 2014.

<sup>91</sup> AER, *Final – Service Target Performance Incentive Scheme, September 2014*, clause 5.2.



## 10 Consumer engagement

### AER's views on effectiveness of TasNetworks' consumer engagement

The AEMC intended that the AER have regard to the nature of consumer engagement undertaken and the outcomes of that engagement.<sup>92</sup>

After reviewing TasNetworks' revenue proposal, we consider that TasNetworks has adopted concrete measures to effectively engage with its consumers. TasNetworks has, for the most part, followed the AER's consumer engagement guidelines and aimed to reflect the outcomes of its consumer consultations in its revenue proposal. This includes TasNetworks' proposal for lower rates of return and of depreciation and foregoing under-recovered revenue from the preceding regulatory period, to reflect consumers' concerns about continued price increases. TasNetworks recognised that its consumer consultation practices are still developing over time and can be improved further, and it will work towards better consumer engagement throughout its business.

As discussed in sections 5 and 6, TasNetworks' proposal is consistent with consumer support for a significant revenue reductions over the next regulatory control period. However, we consider there are some areas that TasNetworks can improve on in its consumer engagement processes.

We have formed this view by reviewing submissions from stakeholders and the CCP, and TasNetworks' proposal.<sup>93</sup>

### AER consumer engagement guideline for service providers

To assist service providers, we developed a consumer engagement guideline for network service providers.<sup>94</sup> 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 TasNetworks:

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<sup>92</sup> 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.

<sup>93</sup> TasNetworks, *Tasmanian Transmission Revenue Proposal*, 31 May 2014, Appendices 1 to 4.

<sup>94</sup> AER, *Consumer engagement guideline for network service providers*, November 2013.

- equipped consumers to participate in consultation
- made issues tangible to consumers
- obtained a cross section of views
- considered and responded to consumer views.

We have made this assessment drawing on TasNetworks' proposal and stakeholder submissions. We have also had regard to extent to which TasNetworks' opex and capex proposals include expenditure to address consumer concerns identified in the course of its engagement with them.<sup>95</sup> Our assessment of these opex and capex factors is detailed in the respective opex and capex attachments.

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

TasNetworks used a range of approaches to consumer engagement. In particular, TasNetworks:

- provided an overview paper together with its revenue proposal, to explain the proposal in plain language to electricity consumers<sup>96</sup>
- set out principles in carrying out its consumer engagement activities in the recent past and in the future based on the AER consumer engagement guideline and the International Association for Public Participation principles<sup>97</sup>
- identified consumer groups and divided them into transmission customers (directly connected to the transmission network) and all other electricity consumers (those connected to the distribution network). TasNetworks' engagement approach was tailored to reflect the different level of knowledge, requirements and preferences of the two groups.<sup>98</sup>
- worked with the distribution business, Aurora Energy, to understand the views of distribution customers, who have less knowledge of the industry
- commissioned a specialist community engagement consultant to assist in designing and implementing consumer engagement programs, targeting distribution network customers.<sup>99</sup>
- met face-to-face with all directly connected transmission customers to outline the key elements of the revenue proposal, listen to feedback, and discuss the ways in which TasNetworks might address the feedback.<sup>100</sup>
- in the lead up to the revenue proposal, held meetings, briefings and information sessions with major customers and user groups on the forecasting methodology, pricing methodology, and negotiating framework
- consulted consumers to get their views on the trade-off between price and reliability<sup>101</sup>

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<sup>95</sup> NER, cl. 6A.6.6(e)(5A) 6A.6.7(e)(5A) for electricity distribution,

<sup>96</sup> TasNetworks, *Tasmanian Transmission Revenue Proposal, An overview for Tasmanian electricity consumers, Regulatory control period 1 July 2014–30 June 2019*.

<sup>97</sup> TasNetworks, *Tasmanian Transmission Revenue Proposal*, 31 May 2014, pp. 30, 37.

<sup>98</sup> TasNetworks, *Tasmanian Transmission Revenue Proposal, An overview for Tasmanian electricity consumers*, 31 May 2014, p. 10.

<sup>99</sup> TasNetworks, *Tasmanian Transmission Revenue Proposal*, 31 May 2014, pp. 5 and 34.

<sup>100</sup> TasNetworks, *Tasmanian Transmission Revenue Proposal*, 31 May 2014, p. 5.

- for non-transmission consumers, engaged a consultant to undertake telephone survey and deliberative forums. These were complemented by other activities such as annual planning forums, meetings with consumer representatives, and consultation on the corporate plan, forecasting methodology and transitional revenue proposal.<sup>102</sup>
- engaged regularly with the Customer Consultative Committee of the Office of the Tasmanian Electricity Regulator (OTTER).

TasNetworks also stated it has had many years of engagement with transmission customers, such as ongoing operational and strategic interaction, annual customer surveys, annual customer consultation (since May 2013) on the corporate plan, and annual consultation and forum on its Annual Planning Report.<sup>103</sup>

Feedback from stakeholders and the CCP on the effectiveness of TasNetworks' consumer engagement was mixed. Hydro Tasmania, a directly connected customer, commended TasNetworks for being responsive and informative in consulting with and providing information to it on NCIPAP projects. It appreciated TasNetworks' consideration of the proposed project timings to minimise market impacts.<sup>104</sup> Other stakeholders had less positive views. One large industrial user, user groups and the CCP did not consider TasNetworks' consumer engagement was sufficient. This was expressed in submissions from Norske Skog<sup>105</sup>, Tasmanian Small Business Council<sup>106</sup>, the MEU and the CCP. Some of these views on TasNetworks' engagement were:

- There was limited high-level contact initiated by TasNetworks despite the importance of large users. TasNetworks has a demonstrated history of poor or no feedback to the Boyer Mill. There was an absence of engagement regarding NCIPAP Project 18 despite this project solely supplying the Boyer Mill. (Norske Skog)<sup>107</sup>
- TSBC acknowledged the efforts TasNetworks made to engage with consumers and its commitment to improve the engagement approach in the future. However, TSBC said that it, not TasNetworks, initiated all of its direct consultations with TasNetworks. Further, TSBC said that none of the consultations had been in advance of TasNetworks' proposals such that they would allow timely input of small business priorities in the proposals. TSBC concluded that it believed there were gaps in TasNetworks consumer consultation and TSBC was not convinced that TasNetworks' efforts were sufficient. (TSBC)<sup>108</sup>

TasNetworks acknowledged that its consumer consultation practices are still developing over time and can be improved further and it will work towards better consumer engagement throughout its business.<sup>109</sup>

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

As noted above, TasNetworks used a variety of approaches to engage with its customers. TasNetworks communicated in its proposal where it believed it had responded to feedback raised

<sup>101</sup> TasNetworks, *Tasmanian Transmission Revenue Proposal*, 31 May 2014, p. 5.

<sup>102</sup> TasNetworks, *Tasmanian Transmission Revenue Proposal*, 31 May 2014, p. 35.

<sup>103</sup> TasNetworks, *Tasmanian Transmission Revenue Proposal*, 31 May 2014, p. 31.

<sup>104</sup> Hydro Tasmania, *Submission to Tasmanian Transmission Revenue Proposal*, 8 August 2014.

<sup>105</sup> Norske Skog, *TasNetworks (Transend) Revenue Proposal: 2014–2019 Regulatory Period*, 8 August 2014.

<sup>106</sup> Tasmanian Small Business Council, *TasNetworks Transmission Revenue Proposal, 2014/15 to 2018/19 Submission*, August 2014.

<sup>107</sup> Norske Skog, *TasNetworks (Transend) Revenue Proposal: 2014-2019 Regulatory Period*, 8 August 2014, p. 11.

<sup>108</sup> Tasmanian Small Business Council, *TasNetworks Transmission Revenue Proposal, 2014/15 to 2018/19 Submission*, August 2014, pp. 12-16.

<sup>109</sup> TasNetworks, *Tasmanian Transmission Revenue Proposal*, 31 May 2014, p. 30.

through its consumer engagement<sup>110</sup>. However, some stakeholders did not consider their views were taken into account sufficiently:

- The MEU accepted that the process for consumer engagement is still in its formative stage, and that the introduction of formal consumer engagement has led to TasNetworks' responsiveness to consumer issues, but it considers more can be done. The MEU commented that TasNetworks cited some case studies of addressing consumer needs, but although TasNetworks had listened to the consumers, it did not take all necessary actions to respond. The MEU said that, on TasNetworks' consumer engagement regarding its proposed capex, the MEU is concerned that the consultation processes were so time and resource limited that making an informed decision on the cost-reliability trade-off was unlikely.<sup>111</sup> The MEU noted that some of its members, and not the MEU itself, participated in TasNetworks' consumer engagement processes. (MEU)<sup>112</sup>
- The CCP6 Sub-Panel expressed the view that TasNetworks' revenue proposal does not fully reflect or respond to the feedback and preferences expressed by large customers. The Sub-panel said that the consumer consultation should have quantified the costs and benefits for the outcome to be relied upon by the AER as driving TasNetworks' proposed expenditures. Further, the Sub-panel said that TasNetworks' consumer engagement to date had been at the 'inform' and 'consult' levels of participation, and expected more effort to engage consumers at the 'involve' and 'collaborate' levels in the future. The Sub-panel's overall view was that the AER cannot rely on the results of TasNetworks' consumer consultation in assessing whether TasNetworks' revenue proposal reflects consumer preferences.<sup>113</sup>

TasNetworks responded to these stakeholders' submissions.<sup>114</sup> It reiterated that it consulted with directly connected transmission customers, and commissioned a specialist consultant to engage with domestic consumers. It said it has complied with the regulatory requirements relating to consumer engagement although it recognises its practices are still developing and it will build on improvements in its engagement approach.<sup>115</sup>

TasNetworks also responded to the CCP Sub-panel's comments on its consumer engagement process. TasNetworks states that the feedback from other stakeholders was not as widely negative as suggested by the CCP. TasNetworks disagrees with the CCP that no reliance can be placed on the outcome of its consultation with distribution consumers, noting that a specialist consultant was engaged and consumers provided useful feedback on the price-reliability trade-off. That said, TasNetworks acknowledged its consumer engagement process can be improved further.<sup>116</sup>

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<sup>111</sup> Major Energy Users Inc. *Tasmanian Electricity Transmission Revenue Reset, TasNetworks Application, A response by The Major Energy Users Inc.*, August 2014, p. 63.

<sup>112</sup> Major Energy Users Inc., *Tasmanian Electricity Transmission Revenue Reset, TasNetworks Application, A response by The Major Energy Users Inc.*, August 2014, pp. 16-20.

<sup>113</sup> AER Consumer Challenge Panel (CCP6 Sub Panel), *Submission on the Transend Revenue Proposal*, 4 September 2014, pp. 3-4.

<sup>114</sup> TasNetworks, *Submissions in response to TasNetworks' transmission Revenue Proposal*, 18 September 2014.

<sup>115</sup> TasNetworks, *Submissions in response to TasNetworks' transmission Revenue Proposal*, 18 September 2014, pp. 1-2.

<sup>116</sup> TasNetworks, *Consumer Challenge Panel's submission on TasNetworks' Revenue Proposal*, 18 September 2014, p. 2.

# 11 Next steps

## Regulatory proposal and AER draft decision

TasNetworks may submit a revised regulatory proposal in response to our draft decision<sup>117</sup> within 30 business days of its publication.<sup>118</sup> 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.<sup>119</sup> 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.<sup>120</sup>

After considering submissions made on the draft decision and any revised revenue proposal, we must make a final decision and transmission determination.<sup>121</sup> Key dates for our assessment process are set out in Table 11-1.

**Table 11-1 Key dates for our assessment process**

Task	Date
TasNetworks' 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
TasNetworks submits revised regulatory proposal	13 January 2015*
Stakeholder submissions on draft decision close	6 February 2015*
AER issues final decision	April 2015

<sup>117</sup> NER, cl. 6A.12.3.

<sup>118</sup> NER, cl. 6A.12.3(a), 11.58.4(n).

<sup>119</sup> NER, cl. 6A.12.2(a) and (b).

<sup>120</sup> NER, cl. 6A.12.2(c), 11.58.4(n).

<sup>121</sup> NER, cl. 6A.13.1.

## Appendix A – Constituent components

Our draft decision includes the following constituent components:<sup>122</sup>

### 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 TasNetworks' building block proposal. Our draft decision on TasNetworks' total revenue cap over the 2015–19 regulatory control period is \$731.2 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 TasNetworks' building block proposal. Our draft decision on TasNetworks' maximum allowed revenue (MAR) for each year of the 2014–19 period is set out in Attachment 1 of this draft decision.

In accordance with clause 6A.14.1(iii) of the NER, the AER has decided to apply the service component, network capability component and market impact component of Version 4.1 of the service target performance incentive scheme (STPIS) to TasNetworks for the 2015–19 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(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 TasNetworks in respect of the 2015–20 regulatory control period are set out in section 9.1 of Attachment 9 of this draft decision.

In accordance with clause 6A.14.1(v) of the NER, the AER has approved the commencement and length of the subsequent regulatory control period as TasNetworks proposed in its revenue proposal. The subsequent regulatory control period will commence on 1 July 2015 and the length of this period is four years from 1 July 2015 to 30 June 2019.

In accordance with clause 6A.14.1(2) and acting in accordance with clause 6A.6.7(d), the AER has not accepted TasNetworks' total forecast capital expenditure of \$275.9 million (\$2013–14). Our substitute estimate of TasNetworks' total forecast capex for the 2014–19 period is \$246.4 million (\$2013–14). 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 accepted TasNetworks' total forecast operating expenditure of \$218.3 million (\$2013–14). This is discussed in Attachment 7 of this draft decision.

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.

TasNetworks did not propose any contingent projects for the 2014–19 regulatory control period. Therefore, in accordance with clause 6A.14.1(4)(iv), the AER has not determined that any proposed contingent project is not a contingent project.

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 the capital expenditure incentives guideline will apply to TasNetworks in the 2015–19 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 6.88 per cent, as set out in Table 3.1 of 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(5C) the AER has decided that the return on debt is to be estimated using a methodology

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<sup>122</sup> NEL, s. 16(1)(c)

referred to in clause 6A.6.2(i)(2), which is set out in section 3.1.1 of Attachment 3 of this draft decision.

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 section 4.1 of Attachment 4 of this draft decision.

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 1 July 2014 is \$1412.2 million. This is set out in Attachment 2 of this draft decision.

In accordance with clause 6A.14.1(5F) the AER has decided that the forecast depreciation approach is to be used to establish the RAB at the commencement of TasNetworks' regulatory control period (1 July 2019). This is discussed in Attachment 2 of this draft decision.

In accordance with clause 6A.14.1(6) the AER has approved TasNetworks' proposed negotiating framework.

In accordance with clause 6A.14.1(7) the AER has specified the negotiated transmission services criteria for TasNetworks in Attachment 14 of this draft decision .

In accordance with clause 6A.14.1(8) the AER has approved TasNetworks' pricing methodology for the 2015–19 regulatory control period.

In accordance with clause 6A.14.1(9) the AER has not approved the additional pass through events TasNetworks proposed would apply for the regulatory control period, in accordance with clause 6A.6.9.

We have proposed substitute definitions for: the following three events should TasNetworks 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.

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## Appendix B - Arrangements for transitional period

### New rules

In November 2012, the Australian Energy Market Commission (AEMC) introduced major changes to the economic regulation of TNSPs under chapters 6A of the NER (the new rules).<sup>123</sup>

Prior to the making of the new rules, TasNetworks' transmission determination was due to commence on 1 July 2014 and would apply for a period of five years. However, the process was delayed so consumers would receive the benefit of the new rules.

To allow for an expedited transition to the new rules, the AEMC made transitional rules in chapter 11 of the NER under which there would be two regulatory control periods to cover the following periods:<sup>124</sup>

- a regulatory control period covering the period 1 July 2014 to 30 June 2015, referred to in the NER as 'the transitional regulatory control period', and
- a regulatory control period covering the period from 1 July 2015 to 30 June 2019 referred to in the NER as 'the subsequent regulatory control period'.<sup>125</sup>

The two periods are separate and distinct,<sup>126</sup> however, our decisions concerning these two periods interact in important ways. This appendix explains why and how.

### The transitional determination

For the transitional regulatory control period, we made a fast-tracked placeholder determination on 28 March 2014 for TasNetworks. It was made following an abbreviated consultation period and was intended to act as a temporary placeholder for 2014–15 to allow for an expedited transition to the new rules.

In a typical transmission determination there are many constituent components relating to the efficient costs of a service provider. In the placeholder determination these components were not subject to our usual detailed assessment to fast track the decision-making process. Some of the decisions in our placeholder determination therefore merely maintained the status quo that had been operating during the previous regulatory control period of 2009–14. For instance, the NER stipulated that although new regulations had introduced a capital efficiency sharing scheme, no new capital efficiency sharing scheme should apply during the transitional regulatory control period. Similarly, any pass through events that had applied during the 2009–14 regulatory control period should continue to apply during the 2014–15 transitional year. Maintaining the status quo in this way was intended to facilitate making a placeholder determination in the short period of time available to allow the transition to the full operation of the rules for the 2015–19 regulatory control period.

Our most complex, and arguably most important, task when we make a transmission determination is to determine the revenues that a service provider may recover each year through its network charges. For the transitional year, the NER transitional rules introduced a fast-tracked approach to assessing

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<sup>123</sup> AEMC Final Rule Determination, *National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2012*, 29 November 2012 (AEMC Final Rule Determination).

<sup>124</sup> NER, cl.11.57.1 defines 'transitional regulatory control period' and 'subsequent regulatory control period' Cl. 11.58.2 outlines the requirements of a transitional regulatory proposal and cl.11.58.4 the subsequent regulatory control period

<sup>125</sup> NER, cl.11.57.1 definitions.

<sup>126</sup> NER, cl. 11.58.4(g).



the expected revenues for that year. Rather than make a detailed assessment of the maximum allowed revenue for the transitional year, we conducted a high level assessment of the key inputs used by the service providers to develop their proposed revenues. We were not satisfied with the proposed revenues for the transitional year and instead determined an alternative maximum allowed revenue by adjusting a limited number of inputs to the service providers' proposals, specifically, the rate of return and value of imputation credits ( $\gamma$ ). We approved this estimate for each service provider as a placeholder revenue allowance that would later be adjusted (or 'trued-up') in our determination for the 2015–19 regulatory control period. That is, the difference between the notional revenue approved for 2014–15 under this full determination process and the placeholder revenue would be adjusted for in net present value terms over the maximum allowed revenue (MAR) determined for each year of the 2015–19 regulatory control period.

## The full transmission determination for 2014–19

Our determination for the 2015–19 regulatory control period is a full determination made under the new rules.

When making our determination of revenues for this period, we are required to determine the notional annual building block revenue requirement for each year of the 2014–19 period (that is, including the 2014–15 transitional year). The unsmoothed annual building block revenue requirement could be quite different between the amounts submitted for the transitional proposal process and for this full proposal process.

However, when determining the expected MARs we will permit TasNetworks to recover through its charges, we smooth the annual building block revenue requirement from year to year. Because the 2014–15 charges have already been set by TasNetworks using a lower revenue target than the MAR determined by the placeholder decision, this smoothing accounts for the revenue target for the transitional year when determining the expected MARs for the three years of the 2015–19 regulatory control period. This process provides a 'true-up' for any difference between the revenue target for the transitional year and our subsequent determination of the MAR for that year, and a general process of smoothing over the 2015–19 regulatory control period.

The effect of this approach is that the MAR we approve over the five years from 2014–19 is calculated under the new rules. In this way the two regulatory control periods are linked. For the purpose of smoothing revenues, the two regulatory control periods are treated as if they had just been one period. For legal purposes generally, however, the two periods remain separate and distinct regulatory control periods.<sup>127</sup>

In this determination, we have sought to reflect the transitional arrangements in the following manner:

- When we need to refer to the five years across the period from 2014–19, we use the phrase '2014-19 period'.
- When we need to distinguish 2014–15 from the 2014–19 period, we refer to it as the transitional year.
- When we refer to official regulatory control period, we use the phrase '2015–19 regulatory control period'.

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<sup>127</sup> NER, Cl. 11.58.4(g).

## Implementing the adjustments ('true-up')

As part of our full determination of notional revenues for the 2014–19 period, we have determined further changes to the rate of return and gamma, and reductions to other costs such as capex and opex. These changes mean that the 2014–15 revenue targeted by TasNetworks was too high. An adjustment (or 'true-up') therefore needs to occur.<sup>128</sup>

The true-up can be measured as the difference between the revenue target for 2014–15 and the notional MAR for 2014–15 determined by the AER in this draft decision. Table B-1 shows how the true-up amount is determined and that \$9.7 million will be returned to customers over the 2015–19 regulatory control period (adjusted for the time value of money).

**Table B-1 True-up for TasNetworks (\$ million, nominal)**

TasNetworks	2014–15
AER draft decision – notional MAR	177.2
TasNetworks revenue target	186.9
Difference	–9.7

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<sup>128</sup> The size of the true-up reflects not only further reductions in costs from the transitional decision but also any difference in the smoothing profile of revenues that occurred between that transitional decision and this draft decision.

## Appendix C – Better Regulation Guidelines

The guidelines which we applied in assessing TasNetworks' 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 prudence 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, 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 spending 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<sup>129</sup>
- 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.<sup>130</sup>

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 spending 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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<sup>129</sup> Under transitional rules no ex post adjustments have been made in this determination. See NER, schedule 6A.2.2A, cl. 11.58.5.

<sup>130</sup> 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 assess 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.

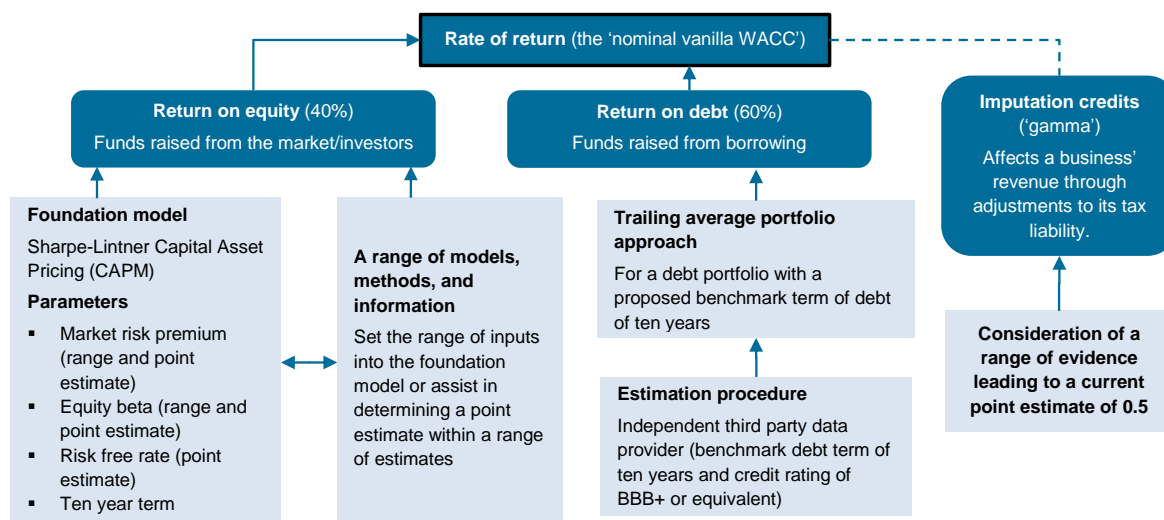
A good estimate of the rate of return is necessary to promote efficient prices in the long term interests of consumers. If the rate of return is set too low, the network business may not be able to attract sufficient funds to be able to make the required investments in the network and reliability may 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 C-1.

**Figure C-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'll 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 over the page.

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.



## Appendix D – Material issues and opportunity to be heard

In considering TasNetworks' proposal and in reaching our draft decision, we undertook a range of processes to inform interested parties of material issues under consideration and provided reasonable opportunities to be heard.

The newly formed Consumer Challenge Panel (CCP) played a significant role in our processes of assessing the proposal before us. The panel advised us on issues that are important to consumers and provided consumer perspectives, particularly those of residential and small business consumers. Members of the panel bring with them experience in regulation, networks, economics, finance and consumer engagement.<sup>131</sup>

The purpose of the CCP is to assist us to make better regulatory determinations by providing input on issues of importance to consumers. Regulatory determinations are technical and complex processes which can make it difficult for ordinary consumers to participate. The expert members of the CCP bring consumer perspectives to us to better balance the range of views we consider as part of our decisions.

The role of CCP members includes:

- advising us on whether a TNSP's proposal is justified in terms of the services to be delivered to customers; whether those services are acceptable to, and valued by, customers; and whether the proposal is in the long term interests of consumers
- advising us on the effectiveness of a TNSP's engagement with its customers and how this engagement has informed, and been reflected in, the development of its proposal.

The CCP provided advice on TasNetworks' regulatory proposal which was published on our website.<sup>132</sup> We address the detail of the CCP's submission in conducted our detailed analysis (see attachments).

In short, the CCP does not fully support TasNetworks' regulatory proposal as being in the long term interests of consumers.<sup>133</sup>

In response to TasNetworks' regulatory proposal, we received eight submissions.<sup>134</sup> Appendix E lists all submissions received and provides a summary of key issues raised.

We regularly engaged with TasNetworks both before and during the review. The purpose of these meetings is for all parties to provide updates and seek information and clarification on issues relevant to the 2014–19 period.

### Consultants

We commissioned the following independent consultants for our draft decision:

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<sup>131</sup> AER, *Statement of intent 2014–15 to COAG Energy Council*, 2014, p. 5. CCP members involved in the TasNetworks reset are Ms Ruth Lavery and Mr Hugh Grant. Member biographies and information on the CCP is available at <http://www.aer.gov.au/node/19305>.

<sup>132</sup> CCP advice is available at <http://www.aer.gov.au/node/11483>.

<sup>133</sup> CCP1, *Submission to the AER - Jam tomorrow?*, August 2014, p. 2.

<sup>134</sup> All submissions are available at <http://www.aer.gov.au/node/11483>.

- Deloitte Access Economics, for advice on forecast growth in labour costs
- Economic Insights for advice on benchmarking
- 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 TasNetworks' 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.

### **Internal experts**

We also boosted our internal expertise by appointing 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 late October 2013. They bring 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.

## Appendix E – List of submissions

We received seven submissions in response to TasNetworks' regulatory proposal:

- Consumer challenge panel
- Nyrstar Hobart Pty Ltd
- Hydro Tasmania
- Norske Skog Paper Mills (Australia) Limited
- Bell Bay Aluminium
- Tasmanian Small Business Council (TSBC)
- Energy Users Association of Australia (EUAA)
- Major Energy Users Inc. (MEU).