



TransGrid

Transend

Transitional transmission determinations

2014–15

March 2014

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Shortened forms

Shortened form	Extended form
AER	Australian Energy Regulator
capex	capital expenditure
CESS	Capital expenditure sharing scheme
CPI	consumer price index
EBSS	efficiency benefit sharing scheme
MAR	maximum allowed revenue
NEO	National Electricity Objective
NER	National Electricity Rules
NTSC	negotiated transmission service criteria
opex	operating expenditure
PTRM	post tax revenue model
RAB	regulatory asset base
RPP	revenue and pricing principles
STPIS	service target performance incentive scheme
TNSP	transmission network service provider
Transend	Transend Networks Pty Ltd
TRP	transitional revenue proposal
WACC	weighted average cost of capital

1 Overview

AER decision

We do not approve TransGrid and Transend Networks Pty Ltd (Transend's) revenues as set out in their transitional revenue proposals. We are not satisfied that recovery of the proposed revenues by TransGrid and Transend are reasonably likely to minimise variations in prices between the:

- current regulatory control period (1 July 2009 to 30 June 2014)
- transitional regulatory control period (1 July 2014 to 30 June 2015)
- subsequent regulatory control period (1 July 2015 to 30 June 2019)
- the regulatory years of the subsequent regulatory control period (the **price variation test**).

In applying the price variation test, we consider that the revenue proposal by TransGrid is not likely to contribute to the achievement of the National Electricity Objective (NEO) and are not consistent with the revenue and pricing principles (RPPs) in the National Electricity Law (NEL) in terms of promoting efficient investment. For Transend we consider that the revenue proposal is not likely to contribute to the achievement of the NEO to the greatest degree and is not consistent with the RPPs in terms of promoting efficient investment.

Instead we have approved a lower placeholder maximum allowed revenue (MAR) for the transitional regulatory control period. We are satisfied this alternative revenue allowance is more likely to minimise variations in prices across the relevant periods and years. Our reasons for this view are set out in this document. Our decisions on the other components of the determinations are also set out in this document.

Our role

We, the Australian Energy Regulator (AER), are responsible for regulating the revenues of distribution and transmission network service providers (DNSPs and TNSPs) operating in the National Electricity Market (NEM). The NEL and the National Electricity Rules (NER) provide the overarching framework under which we operate.

In November 2012, the Australian Energy Market Commission (AEMC) introduced major changes to the economic regulation of distribution and transmission network service providers under chapters 6 and 6A respectively of the NER.¹

Prior to the making of the new rules, transmission determinations for TransGrid and Transend were due to commence on 1 July 2014 and would apply for a period of five years. However, to allow for the gradual introduction of the new rules, the transitional rules adopt a two stage approach for the regulation of these TNSPs over the next five years:²

- the transitional regulatory control period

¹ AEMC Final Rule Determination, *National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2012*, 29 November 2012 (AEMC Final Rule Determination).

² NER, Chapter 11, Savings and Transitional Rules, Part ZW Economic Regulation of Network Service Providers (2012 amendments).

- the subsequent regulatory control period.

The AER is required to make a transmission determination for the transitional regulatory control period by 31 March 2014, which will only apply for one year for TransGrid and Transend, respectively. One of the decisions we must make in this determination is whether to approve the TNSPs' proposed placeholder MAR for the transitional regulatory control period. The AER will then carry out a full regulatory determination process by 30 April 2015 to apply to the subsequent regulatory control period. If the revenue approved in the full regulatory determination for the transitional regulatory control period is different to our transitional determination then a true-up will apply.

This transitional determination is not the usual complete determination that we are required to make under chapter 6A of the NER. We are, however, required to make various decisions for this one year regulatory control period. The decisions that the AER must make for the transitional determination are set out in this decision in appendix A for TransGrid and appendix B for Transend.

One of these decisions relates to the MAR for the transitional year. We may only approve a TNSP's proposed MAR for the transitional year if we are satisfied that the amount is such that the recovery of it by the TNSP is reasonably likely to minimise variations in prices between the relevant regulatory control periods and years, as outline above (referred to as the **price variation test**).³

Our decision must take into account the RPPs in the NEL and we must perform our function in a manner that will or is likely to contribute to the achievement of the (NEO).⁴ Importantly, the price variation test is centred on reducing the potential for any future significant price changes for consumers.

Where relevant, we have set out the manner in which the constituent components of the decision relate to each other in our reasons. We have indicated the manner in which that interrelationship has been taken into account in our decision.

In this determination we have made the decision that we are satisfied would, or is likely to contribute to the achievement of the NEO to the greatest degree, and we have included our reasons as to why we are satisfied that our decision is the preferable decision.⁵

Transitional year review process

The transitional revenue proposals (TRPs) were submitted to us on 31 January 2014 and we are required to publish our transitional determinations by 31 March 2014. This has been intentionally designed as a streamlined process, with no draft decision as would normally be the case with our regulatory determinations. Consistent with this approach, the consultation period we were required to undertake for the placeholder determination is shorter than the consultation undertaken for a full determination. Submissions on the TRPs closed on 3 March 2014.

TransGrid and Transend were required to submit an indicative range of revenue requirements and other relevant information for the purposes of this transitional determination.⁶ We are required to make a high level assessment of the proposed revenue estimate, having regard to the fact that it is an

³ NER, clause 11.58.3(b).

⁴ NEL, s 16(1)(a) and (2)(a).

⁵ NEL, s 16. Section 16 provides that the AER must perform or exercise its function or power in a manner that will or is likely to contribute to the achievement of the NEO and further, if the function or power relates to the making of, relevantly, a transmission determination, ensure, amongst other matters, that where there are two or more possible reviewable regulatory decisions that will or are likely to contribute to the achievement of the NEO, make the decision that the AER is satisfied will or is likely to do so to the greatest degree (the preferable reviewable regulatory decision).

⁶ NER, clause 11.58.2(b).

estimate based on indicative inputs and that any adjustments will be made to the MAR in the subsequent regulatory control period. Importantly, we are not required to make a determination based on a detailed assessment of the building block methodology.

Our approach

Our decision to approve or not approve the proposed MAR for the transitional regulatory control period requires us to form a view about the expected movement of prices not just for the transitional year but from 2013 to 2014, 2014 to 2015 and so on until 2019. This view in turn must necessarily reflect our expectations of future revenues and demand.

Our expectations of future revenues are based on our assessment of the information currently available to us which includes indicative estimates or ranges of key inputs as submitted by TransGrid and Transend.

In considering the various inputs used to calculate prices, we have largely relied upon the indicative inputs provided by the TNSPs to support their proposals. We have had regard to the fact that our determination of revenue is an estimate only. An adjustment will be made to future MARs in accordance with the transitional rules to account for the revenue we approve in this transitional year. In the absence of detailed information about particular building blocks, we are generally not able to undertake the rigorous kind of analysis that would be required to be satisfied that the TNSPs' indicative inputs are accurate or inaccurate.

Nevertheless, while we have used most of the inputs provided by TNSPs in making our assessment, we have paid particular attention to the indicative rate of return and 'tax imputation credits' (γ) proposed by the TNSPs in support of their proposals. Given the significance of the rate of return in calculating revenue, small changes in the rate of return can have significant implications for prices. If the TNSPs have proposed a rate of return that we consider is likely to be too high, proposed prices, based on the energy forecasts provided by TNSPs, will also be too high.

In considering a reasonable indicative rate of return, we have had regard to the proposals, to our own guideline, to available market information and expected market trends, and are aware that the rate of return is subject to movement. After making an appropriate adjustment to the rate of return and to the value of imputation credits (γ)⁷ used to support the TNSPs' proposals, we then consider the transitional revenue proposals in the context of the price variation test taking into account the NEO and RPPs.

We consider this approach should not, in any way, be taken as an indication of our assessment of the full proposals in which a true-up of revenue for the transitional regulatory control period will be conducted. The approach and conclusions in this determination are purely for the purposes of making the required assessment we must make for this transitional regulatory control period under the transitional rules.

AER reasons

Our reasons for not accepting the TRPs are summarised below. We have assessed whether the proposals are likely to satisfy the price variation test by considering key inputs into the proposed indicative ranges for the MAR. In particular, we have focused on the rate of return element in the MAR in the context of whether the proposals are likely to minimise variations in transmission prices over the

⁷ The γ value impacts upon the cost of corporate income tax.

relevant regulatory control periods and years. In line with the price variation test, this is with a view to reducing the potential for any future significant price changes.

For the rate of return the service providers were required to submit an indicative range that:⁸

- takes into account available market information
- takes into account expected market trends
- has regard to the rate of return guideline published by the AER.

The indicative ranges for rate of return parameters proposed in the TRPs are higher than the ranges that we would have expected. If our foundation model set out in our guideline had been applied, this would have resulted in a range outside of and lower than the ranges proposed by each of TransGrid and Transend.

We have been guided by the methods and point estimates established in the guideline process in making this decision, given the limited scope of this transitional determination. In general, the rate of return guideline was published in December 2013. It was informed by extensive public consultation and based on robust engagement with consumers, service providers and other interested stakeholders. We consider the guideline encapsulates an outcome reached after careful consideration and deliberation with stakeholders across the market. Further, we consider that the approaches set out in our guideline take into account available market information and expected market trends. We therefore consider that to the extent that we have utilised the approaches and principles from the guideline in our foundation model analysis for assessing the rate of return, this meets the NER and the NEL requirements in that it is most likely to result in outcomes that are in the long-term interests of consumers. For the same reasons, we have adopted a value of gamma that is consistent with our rate of return guideline. Given this analysis, we consider that the higher indicative rate of return ranges proposed by both TransGrid and Transend result in higher or overstated MARs, the recovery of which would not be consistent with the price variation test taking into account the NEO and RPPs. Accepting the proposed MARs would mean that TransGrid's and Transend's transmission prices are likely to be higher in the transitional and subsequent regulatory control periods than is likely to be the case based on our rate of return analysis for the limited purpose of this determination. As such, TransGrid's proposed MAR is not likely to contribute to the achievement of the NEO and is not consistent with the RPPs in terms of promoting efficient investment.⁹ For Transend, its proposed MAR is not likely to contribute to the achievement of the NEO to the greatest degree and is not consistent with the RPPs in terms of promoting efficient investment.¹⁰ Accordingly, we are not satisfied that the proposed MARs are reasonably likely to minimise price variations between the relevant periods and years because of the extent of this likely price difference as set out in our analysis. This has the potential to lead to a greater risk of more significant price changes for consumers contrary to the objective of the price variation test, which is intended to avoid such changes.

Apart from the rate of return and the value of gamma, we undertook a preliminary review of the other information that TransGrid and Transend were required to submit to us including their indicative estimates of forecast operating expenditure (opex) and capital expenditure (capex) for the transitional regulatory control period and their planned expenditures for the years 2015 to 2019. We are not required to conduct a building block assessment for this determination. We will assess opex and capex as proposed by the TNSPs in their revenue proposals (which are yet to be received) for the

⁸ NER, cl. 11.58.2(b)(2).

⁹ NER, cl 11.58.3(b); NEL, s 7, 7A; s 16(1)(a), s 16(2)(a).

¹⁰ NER, cl 11.58.3(b); NEL, s 7, 7A; s 16(1)(a) and (d), s 16(2)(a).

subsequent regulatory control period at the time of the full determination. In this determination, for the very limited purpose of determining a placeholder MAR, we have used the proposed indicative estimates of opex, capex and the value of the opening regulatory asset base as inputs in our price variation test analysis. We recognise that these inputs may not ultimately be reflected in the MAR approved in the full determination. However, taking into account the RPPs, we consider that for the purpose of the placeholder MAR, this approach will provide TransGrid and Transend with a reasonable opportunity to recover at least the efficient costs incurred in providing prescribed services in the transitional year under this placeholder determination given our adjustment to the rate of return and the value of gamma.¹¹

Accept, or reject and substitute MAR

We are not satisfied that the MARs proposed in the respective TRPs of TransGrid and Transend are such that the recovery of those amounts is reasonably likely to minimise variations in prices between the relevant periods and years. We therefore do not accept the proposed MARs in TransGrid's and Transend's TRPs. We approve instead amounts which we are satisfied are reasonably likely to minimise variations in prices.

In particular, we are rejecting and substituting the TNSPs' proposed indicative MARs with those based on revised inputs to the placeholder MARs that has regard to our rate of return guideline and current available market information and trends. The rate of return guideline was published in December 2013 and was informed by extensive public consultation and rigorous analysis and debate. In arriving at our substitute MARs, we have also adopted a value for gamma that is founded on our extensive analysis in that guideline.

We consider these substitute MARs are reasonably likely to minimise price variations between and within the relevant regulatory control periods and years.

Our conclusion, based on our high level analysis, takes into account in so far as is possible that the MAR is made up of several constituent components. However, we are not tasked with conducting a building block analysis of these components for this determination and decisions with respect to other components have been prescribed or fixed under the transitional rules such that we are not required to exercise any discretion on those aspects. The approved MARs, with the exception of the indicative ranges for the rate of return and the value of gamma, adopts all inputs into the MAR proposed by TransGrid and Transend in the knowledge that these are unassessed estimates only and the MAR will be subject to a true up. At the same time, our application of the price variation test takes into account the long-term interests of consumers by applying a rate of return that has regard to our guideline and takes into account expected market trends and available information, and a value of gamma that we are satisfied is the best estimate given the analysis undertaken for our guideline. Our approved MAR recognises the interrelationship between these unassessed components and a rate of return based on our guideline to the extent possible, and a value for gamma that is also consistent with the guideline. It provides TransGrid and Transend with a reasonable opportunity to recover at least efficient costs and further, is likely to contribute to the NEO by promoting efficient investment in, and the efficient operation and use of, electricity services for the long-term interests of consumers particularly with respect to price.

We note that TransGrid has an under-recovery of \$71 million in its allowed MAR for 2013–14.¹² We also note that Transend has an under-recovery of \$26 million and \$11 million in its allowed MAR for

¹¹ NEL, s 7A(2).

¹² TransGrid, *Transitional revenue proposal 2014/15*, January 2014, p. 65.

2013–14 and 2012–13, respectively.¹³ This under-recovery for TransGrid has arisen as a result of its decision to adopt a ‘revenue freeze’ in 2013–14. For Transend, this under-recovery has arisen due to its decision to only recover revenue associated with lower expenditure incurred towards the end of the current regulatory control period. We have no role in considering the regulatory treatment of these under-recoveries. The TNSPs are able to recover in future years any shortfalls in revenue that are below the approved MAR. Any decision by TransGrid or Transend to recover this revenue would affect transmission prices for its customers independently of the AER’s transitional determination.

Table 1.1 shows TransGrid’s proposed revenue (and price path) for the transitional regulatory control period and our substituted revenue (and price path) for the transitional regulatory control period.

Table 1.1 TransGrid’s proposed revenue and price path and AER substituted revenue and price path

	2013–14	2014–15	Change (%)	Difference from proposed 2014–15 (%)
Proposed revenue and price path				
Revenue (\$million, nominal)	863.0 ^(a)	929.9	7.7%	n/a
Price path (\$/MWh, nominal)	12.8	13.7	7.4%	n/a
AER substitute revenue and price path				
Revenue (\$million, nominal)	863.0 ^(a)	845.4	–2.0%	–9.1%
Price path (\$/MWh, nominal)	12.8	12.5	–2.3%	–9.1%

(a) The 2013–14 revenue reflects TransGrid’s estimated revenue of \$863 million. TransGrid’s allowed revenue for 2013–14 is \$934 million.

¹³ Transend, *Transitional revenue proposal, Regulatory control period 1 July 2014–30 June 2015*, January 2014, p. 5.

Table 1.2 shows Transend’s proposed revenue (and price path) for the transitional regulatory control period and our substituted revenue (and price path) for the transitional regulatory control period.

Table 1.2 Transend’s proposed revenue and price path and AER substituted revenue and price path

	2013–14	2014–15	Change (%)	Difference from proposed 2014–15 (%)
Proposed revenue and price path				
Revenue (\$million, nominal)	221.5 ^(a)	215.5	–2.7%	n/a
Price path (\$/MWh, nominal)	21.5	21.1	–1.7%	n/a
AER substitute revenue and price path				
Revenue (\$million, nominal)	221.5 ^(a)	205.1	–7.4%	–4.8%
Price path (\$/MWh, nominal)	21.5	20.1	–6.4%	–4.8%

(a) The 2013–14 revenue reflects Transend’s estimated revenue of \$222 million. Transend’s allowed revenue for 2013–14 is \$248 million.

2 About this review

This chapter provides an overview of TransGrid and Transend and an outline of the AER's review process for making a transitional determination for the transitional year.

2.1 Overview

TransGrid (NSW/ACT TNSP) and Transend (Tasmanian TNSP) are subject to a transitional determination and therefore submitted transitional revenue proposals to the AER.

TransGrid

TransGrid is a NSW government owned corporation that owns, operates and manages the electricity transmission network in New South Wales and the Australian Capital Territory. TransGrid's network stretches along the east coast of Australia from Queensland to Victoria, then inland to Broken Hill, making it the backbone of the NEM. It connects major generation sources in the Central Coast, Hunter Valley, Lithgow area and Snowy Mountains, and is interconnected with the Victorian and Queensland networks. TransGrid's network also connects to four distribution businesses (in NSW and ACT). TransGrid operates more than 12,600 circuit kilometres of transmission lines and cables, along with 91 substations, with nominal voltages of 500 kV, 330 kV, 220 kV and 132 kV.¹⁴

Transend

Transend is the transmission network service provider in the Tasmanian region of the national electricity market (NEM). Transend owns, operates, maintains and manages Tasmania's high-voltage 220 kV and 110 kV transmission network and lower-voltage 44, 33, 22, 11 and 6.6 kV connection assets that together form the transmission system. It owns 48 substations and eight switching stations and 3,600 circuit kilometres of transmission lines.¹⁵

2.2 Review process

The review process for this transitional year differs from the AER review process under a normal determination. In particular and as shown in table 2.1, the timeframes are considerably condensed, with the review from start to finish being two months. We also conducted limited stakeholder engagement, seeking submissions within 20 business days. Submissions received during the review process are available on our website. See appendix C for a full list of submissions received.

The TNSPs submitted transitional revenue proposals to the AER on 31 January 2014. In accordance with the transitional rules, the TNSPs were not required in their proposals to submit the kind of information that is required for a full five year determination. Information of that kind, such as details about particular expenditure projects and demand forecasts, must be submitted as part of its proposal by 31 May 2014 for the full determination for the subsequent regulatory control period. A brief summary of the information contained in the proposals can be found in appendix D.

¹⁴ See <http://www.transgrid.com.au/aboutus/Pages/default.aspx>; AER, *Transmission network service provider performance report 2010-11*, July 2013, p. 32

¹⁵ Transend, *Transitional revenue proposal, Regulatory control period 1 July 2014–30 June 2015*, January 2014, p. 21; AER, *Transmission network service provider performance report 2010-11*, July 2013, p. 29.

Table 2.1 Key dates in the AER's transitional decision making process

Key stages in the decision making process	Date
Submission of TNSP's transitional revenue proposal to the AER	31 January 2014
Publication of TNSP's transitional revenue proposal	4 February 2014
Submissions on TNSP's transitional revenue proposal due	3 March 2014
Publication of AER transitional decision	28 March 2014

2.2.1 Protected information submitted to the AER

We are committed to treating protected information received from the TNSPs and other stakeholders in accordance with the NEL. The NEL allows us to disclose protected information in certain circumstances.¹⁶ This decision contains no sensitive information.

2.2.2 Structure of this document

The remaining part of this transitional determination is set out as follows:

Chapter 3: AER's approach

Chapter 4: Revenues for the transitional year

Chapter 5: Other constituent decisions.

¹⁶ NEL, Part 3, Division 6.

3 AER's approach

This chapter outlines the legal requirements informing the AER's decisions and an explanation of the AER's assessment approach.

3.1 Assessment criteria

The AER must first assess whether the proposal complies with the content requirements in the transitional rules.¹⁷

The AER must then assess the substantive content of the proposal.

Several of the decisions that the AER must make are fixed in the transitional rules. For example, the length of the regulatory control period and that no capital expenditure sharing scheme applies during the transitional regulatory control period are both decisions that are required to be made in the terms set out in the transitional rules and over which the AER has no discretion. In these circumstances, the AER must make the decision that is required by the transitional rules without needing to undertake any further analysis.

Some constituent decisions are required to take a certain form set out in the transitional rules unless they have been modified in the relevant Framework and Approach paper. This includes decisions on the application of the efficiency benefit sharing scheme (EBSS) and the service target performance incentive scheme (STPIS). The AER must make a decision in this determination that reflects those requirements.

The AER is required, however, to exercise discretion when assessing the MAR proposed by the TNSP.

The criteria applied in this assessment are different to the standard building block approach that is normally applied by us in a full determination. A complete building block assessment will occur later. By contrast, the assessment for the placeholder MAR for the transitional determination is a much more limited and confined assessment both in time and scope. The AEMC explained:

...[t]he AER [is] to apply relatively high level criteria when assessing a NSP's proposal, rather than undertaking a detailed assessment that would usually be required [under] the rules. Put another way, the AER is not required to justify its decision about the placeholder revenue by applying a building block model to estimate a NSP's placeholder revenue requirements.¹⁸

We may only approve the amount proposed if we are satisfied that:

...the amount is such that recovery of it by [TNSP]...is reasonably likely to minimise variations in prices between the... current regulatory control period, transitional regulatory control period and subsequent regulatory control period and between the regulatory years of the subsequent regulatory control period.¹⁹

As to this requirement to minimise price variations, the AEMC noted it was desirable that the transitional rules not give rise to one-off price shocks:

Prices should not be distorted when moving from the previous rules to the new rules, unless the underlying economic costs of the NSP's change. The transitional arrangements seek to minimise the potential for

¹⁷ NER, clauses 11.57.2(b) and 11.58.2(a).

¹⁸ AEMC, *Final Rule Determination*, p. 237.

¹⁹ Clause 11.58.3(b). A "regulatory year" is "[e]ach consecutive period of 12 calendar months in a regulatory control period, the first such 12 month period commencing at the beginning of a regulatory control period and the final 12 month period ending at the end of the regulatory control period": Chapter 10 NER.

one-off price shocks for consumers in this regard and therefore provide appropriate price signals to consumers.²⁰

In deciding whether to approve the proposed revenue proposal, we also must take into account the revenue and pricing principles in the NEL, and perform or exercise our functions or powers in a manner that will or is likely to contribute to the achievement of the national electricity objective.²¹

The transitional rules expressly require us to have regard to the fact that the MAR for the transitional regulatory control period is an estimate that is based on indicative inputs and that the determination for the subsequent regulatory control period will make an adjustment to the total MAR for the subsequent regulatory control period in accordance with the transitional rules.

We must also have regard to:

- the information included in or accompanying the proposal
- submissions received in the course of consulting on the proposal
- analysis undertaken by or for us in connection with the proposal.²²

If we do not approve the indicative MAR proposed for the transitional regulatory control period, then we must approve a MAR that we are satisfied is such that the recovery of it by the affected TNSP is reasonably likely to minimise variations in prices between the affected TNSPs current regulatory control period, transitional regulatory control period and subsequent regulatory control period and between the regulatory years of the subsequent regulatory control period.²³

As required by the transitional rules, our analysis is therefore directed at assessing the MAR proposed by the TNSP against the above criteria aimed at minimising price variations.

More generally, we note that in assessing the proposal we must set out the basis and rationale for our decision. This must include details of any qualitative or quantitative methodologies applied by us, the values adopted by us in any calculations and formulae, details of any assumptions made by us and reasons for the making of any decisions, the giving or withholding of any approvals, and the exercise of any discretion.

3.2 Assessment approach

Under the price variation test, our decision to approve or not approve the proposed MAR for the transitional regulatory control period requires us to form a view about the expected movement of prices from 2013 to 2014, 2014 to 2015 and so on until 2019. This view necessarily reflects our expectations of future revenues and demand.

Our expectations of future revenues are based on our assessment of the information currently available to us which includes indicative estimates or ranges of key inputs included in the proposals. We have largely relied upon these proposed indicative inputs but have paid particular attention to the indicative rate of return and 'tax imputation credits' (gamma) proposed by the TNSPs in support of their proposals. In considering a reasonable indicative rate of return, we have had regard to the proposals, to our own guideline, to available market information and expected market trends. After

²⁰ AEMC Final Rule Determination, p. 15.

²¹ NEL, s 16. See p 238 of AEMC Final Rule Determination.

²² NER, clause 11.58.3(c).

²³ NER, clause 11.56.3(d).

making an adjustment to the rate of return and to the value of gamma used to support the TNSPs' proposals, we then consider the transitional revenue proposals in the context of the price variation test taking into account the NEO and RPPs.

We consider this approach should not, in any way, be taken as an indication of our assessment of the full proposals that TransGrid and Transend have yet to submit for the purposes of the full determination. In that full determination, a true-up of revenue for the transitional regulatory control period will be conducted. The approach and conclusions in this determination are purely for the limited purposes of making the required assessment we must make for this transitional regulatory control period under the transitional rules.

4 Revenues for the transitional year

This chapter sets out the placeholder MAR for the two TNSPs for 2014–15 and states whether we accepted, or rejected and substituted, the TNSPs' transitional revenue proposals. This is followed by an explanation on how the AER reached its decision, including the key drivers of the MAR.

4.1 Maximum allowed revenue for transitional year

We do not approve TransGrid's proposed MAR of \$929.9 million (\$ nominal) and Transend's proposed MAR of \$215.5 million (\$ nominal) for the transitional regulatory control period. This is because recovery of the indicative MARs proposed by TransGrid and Transend is not reasonably likely to minimise price variations between the relevant periods and years as required under the transitional rules.²⁴ Instead we have substituted a revenue allowance of \$845.4 million (\$ nominal) for TransGrid and \$205.1 million (\$ nominal) for Transend. We are satisfied that our substituted revenues for TransGrid and Transend are reasonably likely to minimise variations in price consistent with the requirements of the transitional rules.²⁵

We note that TransGrid has an under-recovery of \$71 million in its allowed MAR for 2013–14. This under-recovery for TransGrid has arisen as a result of its decision to adopt a 'revenue freeze' in 2013–14.²⁶ Any decision by TransGrid to recover this revenue would affect transmission prices for its customers independently of the AER's transitional determination.

We also note that Transend has an under-recovery of \$26 million and \$11 million in its allowed MAR for 2013–14 and 2012–13, respectively.²⁷ This under-recovery has arisen due to a decision by Transend to only recover revenue associated with lower expenditure incurred towards the end of the current regulatory control period. Any decision by Transend to recover this revenue would also affect transmission prices for its customers independently of the AER's transitional determination.

Our decision on the TNSPs' MAR for the transitional regulatory control period is as set out at Table 4.1.

Table 4.1 Maximum allowed revenue for 2014–15 (\$ million, nominal)

	Proposed MAR	AER approved MAR	Difference from the proposed MAR
TransGrid	929.9	845.4	–84.5 (–9.1%)
Transend	215.5	205.1	–10.4 (–4.8%)

Source: AER analysis.

Sections 4.1.1 and 4.1.2 discuss our high level assessment of TransGrid's and Transend's proposed indicative MARs and the reasons for our decisions, respectively.

²⁴ NER, clause 11.58.3(b).

²⁵ NER, clause 11.58.3(d).

²⁶ TransGrid, *Transitional revenue proposal 2014/15*, January 2014, p. 65.

²⁷ Transend, *Transitional revenue proposal, Regulatory control period 1 July 2014–30 June 2015*, January 2014, p. 5.

4.1.1 TransGrid

We do not accept TransGrid's proposed MAR for the transitional regulatory control period. Instead we have substituted a MAR of \$845.4 million (\$ nominal). This is because after considering the key revenue drivers as an input into the MAR, our analysis indicates that the proposed MAR is likely to be overstated. In particular, when factoring in a rate of return that has regard to our rate of return guideline, and taking into account available market information and expected market trends, we expect forecast costs to be lower than that proposed by TransGrid in relation to the return on capital and corporate income tax, as discussed in section 4.2. We are satisfied that a MAR that incorporates a rate of return and gamma value that more accurately has regard to these factors is reasonably likely to minimise price variations. Given this, our assessment at the time of this transitional determination is that the MAR proposed by TransGrid is not reasonably likely to minimise variations in price in that it is not reducing the potential for any future significant price changes for consumers.

We have therefore adjusted the proposed MAR for the transitional regulatory control period to reflect our adjustment to TransGrid's proposed rate of return and value of imputation credits (gamma) as discussed in sections 4.2.1 and 4.2.5, respectively. Accordingly, we determine a MAR of \$845.4 million for the transitional regulatory control period for TransGrid.

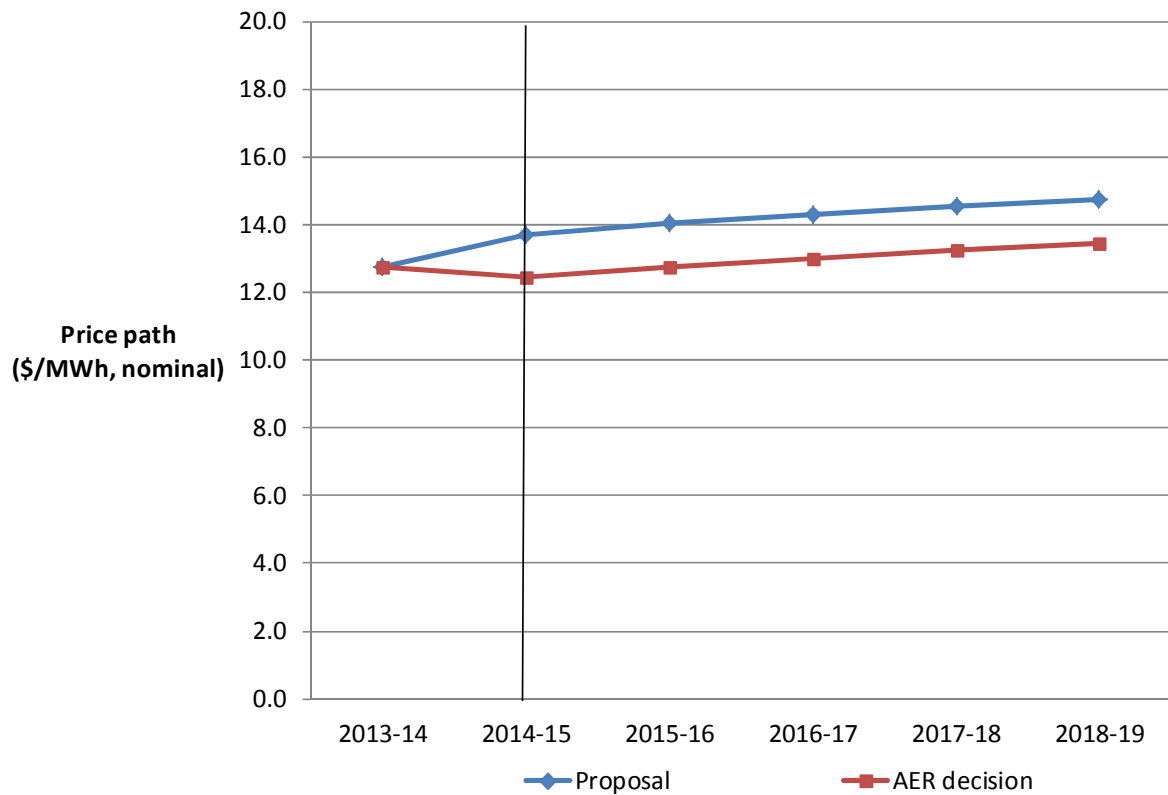
We note the Major Energy Users' submission on its concern with TransGrid's smoothing approach to derive the placeholder MAR.²⁸ We agree that only the MAR for the transitional regulatory control period is being established. However, we must also consider the impact of price variations over the relevant regulatory control periods and years. To this end, we consider that the smoothing approach employed by TransGrid for the subsequent regulatory control period contributes to minimising price variations. For the purposes of this transitional determination we have adopted this smoothing approach for the subsequent regulatory control period, but we have adjusted the MAR for the transitional regulatory control period. We will have to confirm the smoothing approach for the subsequent regulatory control period as part of the full determination process, just as we will have to consider all other elements of the full proposal before making the full determination.

Figure 4.1 shows TransGrid's price path based on its proposed MAR and the price path based on our MAR adjusted for the rate of return and gamma. We consider our adjusted MAR for TransGrid over the transitional regulatory control period is reasonably likely to result in a price path that minimises price variations. This is because we expect its forecast costs to be lower than that proposed by TransGrid. We consider that if the reduction to the revenue is not made in this decision, then any resulting over-recovery in the transitional regulatory control period would be reasonably likely to lead to more significant price variations over the relevant regulatory control periods and years. It is not likely to contribute to the achievement of the NEO and is not consistent with the RPPs in terms of promoting efficient investment.²⁹

²⁸ Major Energy Users, *NSW electricity transmission revenue reset: TransGrid application for transition year 2014/15—A response*, February 2014, p. 23.

²⁹ NER, cl 11.58.3(b); NEL, s 7, 7A; s 16(1)(a), s 16(2)(a).

Figure 4.1 TransGrid proposed indicative transmission price path and AER price path after substituting proposed MAR (\$/MWh, nominal)



Note: The 2013–14 price is calculated based on TransGrid’s estimated 2013–14 revenue of \$863 million. TransGrid’s proposal provided a price path by dividing the annual expected MAR by the forecast annual energy delivered in New South Wales over the 2014–15 and 2016–19 regulatory control periods. TransGrid’s energy forecasts are consistent with the AEMO’s 2013 forecasts. We have adopted TransGrid’s approach and energy forecasts for the purposes of reviewing the price path for this decision.

Source: AER analysis.

Table 4.2 shows TransGrid’s proposed revenue (and price path) for the transitional and subsequent regulatory control periods and our substituted revenue (and price path) for the transitional and subsequent regulatory control periods.

Table 4.2 TransGrid’s proposed revenue and price path and AER substituted revenue and price path

	2013–14	2014–15	2015–16	2016–17	2017–18	2018–19
Proposed revenue and price path						
Revenue (\$million, nominal)	863.0 ^(a)	929.9	953.3	977.4	1002.1	1027.4
Price path (\$/MWh, nominal)	12.8	13.7	14.0	14.3	14.6	14.8
Revenue (change %)	n/a	7.7	2.5	2.5	2.5	2.5
Price path (change %)	n/a	7.4	2.4	2.0	1.7	1.4
AER substitute revenue and price path						
Revenue (\$million, nominal)	863.0 ^(a)	845.4	866.7	888.6	911.1	934.1
Price path (\$/MWh, nominal)	12.8	12.5	12.8	13.0	13.2	13.4
Revenue (change %)	n/a	–2.0	2.5	2.5	2.5	2.5
Price path (change %)	n/a	–2.3	2.4	2.0	1.7	1.4

(a) The 2013–14 revenue reflects TransGrid’s estimated revenue of \$863 million. TransGrid’s allowed revenue for 2013–14 is \$934 million.

Note: TransGrid has an under-recovery of \$71 million in its allowed MAR for 2013–14. Any decision by TransGrid to recover this revenue would affect transmission prices for its customers independently of the AER’s transitional determination. The AER’s substitute revenue in this table does not include recovery of any of this amount in 2014–15.

4.1.2 Transend

We do not accept Transend’s proposed MAR for the transitional regulatory control period. Instead we have substituted a MAR of \$205.1 million (\$ nominal). This is because after considering the key revenue drivers as an input into the MAR, our analysis indicates that the proposed MAR is likely to be overstated. We note that the Tasmanian Small Business Council’s submission welcomed the real price reductions in Transend’s proposal, but did not accept that ‘Transend has gone far enough’.³⁰

In particular, when factoring in a rate of return that has regard to our rate of return guideline, and taking into account available market information and expected market trends, we expect forecast costs to be lower than that proposed by Transend in relation to the return on capital and corporate income tax, as discussed in section 4.2. We are satisfied that a MAR that incorporates a rate of return and gamma value that more accurately has regard to these factors is reasonably likely to minimise price variations. Given this, our assessment at the time of this transitional determination is that the MAR proposed by Transend is not reasonably likely to minimise variations in prices, in that it is not reducing the potential for any future significant price changes for consumers.

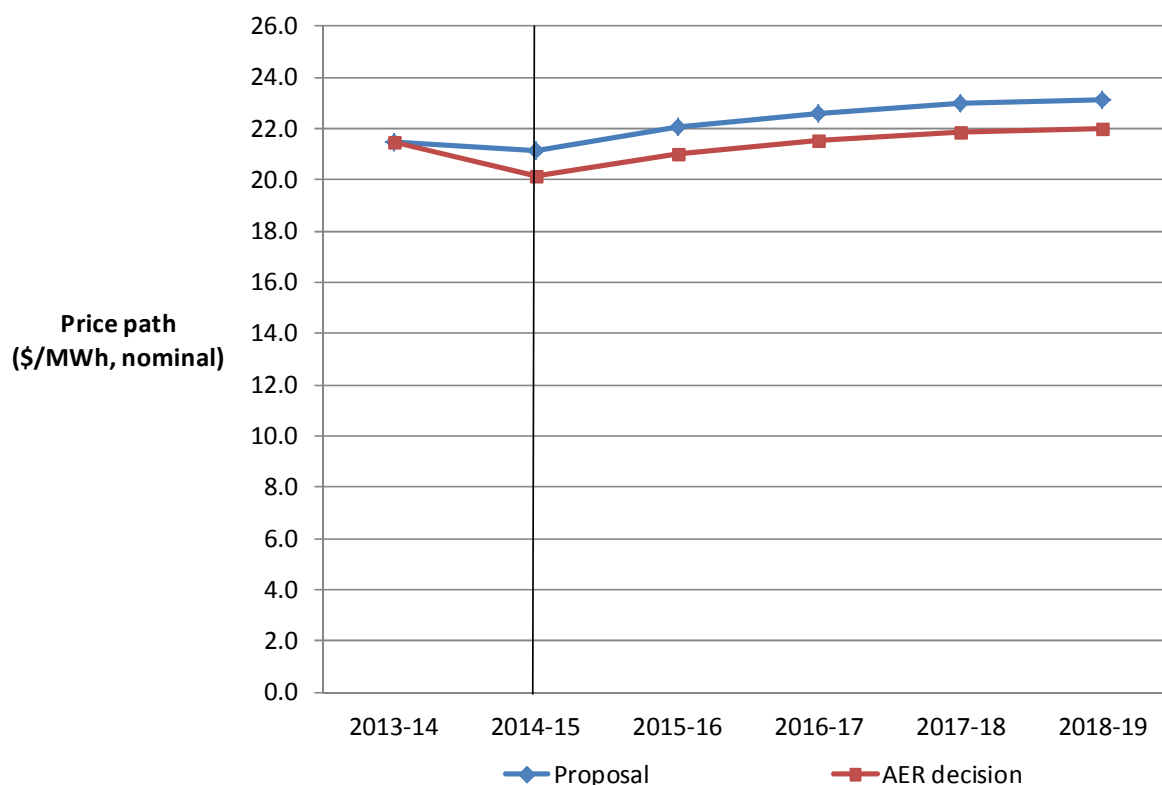
We therefore have adjusted the proposed MAR for the transitional regulatory control period to reflect our adjustment to Transend’s proposed rate of return and gamma as discussed in sections 4.2.1 and 4.2.5, respectively. Accordingly, we determine a MAR of \$205.1 million for the transitional regulatory control period for Transend.

³⁰ Tasmanian Small Business Council, *Transend transitional revenue proposal, 2014/15—Submission*, March 2014, p. 3.

We note the Major Energy Users' submission on its concern with Transend's smoothing approach to derive the placeholder MAR.³¹ We agree that only the MAR for the transitional regulatory control period is being established. However, we must also consider the impact of price variations over the relevant regulatory control periods and years. To this end, we consider that the smoothing approach employed by Transend for the subsequent regulatory control period contributes to minimising price variations. For the purposes of this transitional determination we have adopted this smoothing approach for the subsequent regulatory control period, but we have adjusted the MAR for the transitional regulatory control period. We will have to confirm the smoothing approach for the subsequent regulatory control period as part of the full determination process, just as we will have to consider all other elements of the full proposal before making a full determination.

Figure 4.2 shows Transend's price path based on its proposed MAR and the price path based on our adjustment to the rate of return and gamma. We consider our adjusted MAR for Transend over the transitional regulatory control period is reasonably likely to result in a price path that minimises price variations. This is because we expect its forecast costs to be lower than that proposed by Transend. We consider that if the reduction to the revenue is not made in this decision, then any resulting over-recovery in the transitional regulatory control period would be reasonably likely to lead to more significant price variations over the relevant regulatory control periods and years. It is not likely to contribute to the achievement of the NEO to the greatest degree and is not consistent with the RPPs in terms of promoting efficient investment.³²

Figure 4.2 Transend's proposed indicative price path and AER price path after substituting proposed MAR (\$/MWh, nominal)



³¹ Major Energy Users, *Tasmanian electricity transmission revenue reset: Transend application for transition year 2014/15—A response*, February 2014, p. 18.

³² NER, cl 11.58.3(b); NEL, s 7, 7A; s 16(1)(a) and (d); s 16(2)(a).

Note: The 2013–14 price is calculated based on Transend’s estimated 2013–14 revenue of \$221.5 million. We note that Transend’s proposal provided a price path by dividing the annual expected MAR by the forecast annual energy delivered in Tasmania over the 2014–15 and 2016–19 regulatory control periods. Transend’s energy forecasts are consistent with the AEMO’s 2013 forecasts. We have adopted Transend’s approach and energy forecasts for the purposes of reviewing the price path for this decision.

Source: AER analysis.

Table 4.3 shows Transend’s proposed revenue (and price path) for the transitional and subsequent regulatory control periods and our substituted revenue (and price path) for the transitional and subsequent regulatory control periods.

Table 4.3 Transend’s proposed revenue and price path and AER substituted revenue and price path

	2013–14	2014–15	2015–16	2016–17	2017–18	2018–19
Proposed revenue and price path						
Revenue (\$million, nominal)	221.5 ^(a)	215.5	219.7	224.1	228.6	233.1
Price path (\$/MWh, nominal)	21.5	21.1	22.0	22.6	23.0	23.1
Revenue (change %)	n/a	–2.7	2.0	2.0	2.0	2.0
Price path (change %)	n/a	–1.7	4.3	2.4	1.7	0.6
AER substitute revenue and price path						
Revenue (\$million, nominal)	221.5 ^(a)	205.1	209.2	213.3	217.6	221.9
Price path (\$/MWh, nominal)	21.5	20.1	21.0	21.5	21.9	22.0
Revenue (change %)		–7.4	2.0	2.0	2.0	2.0
Price path (change %)		–6.4	4.3	2.4	1.7	0.6

(a) The 2013–14 revenue reflects Transend’s estimated revenue of \$222 million. Transend’s allowed revenue for 2013–14 is \$248 million.

Note: Transend has an under-recovery of \$26 million and \$11 million in its allowed MAR for 2013–14 and 2012–13, respectively.

4.2 Key components and drivers of the maximum allowed revenue

The annual MAR for a regulatory control period is built up from various revenue components. These components include return on capital, regulatory depreciation, operating expenditure (opex), cost of corporate income tax and rewards/penalties of certain schemes (such as the efficiency benefit sharing scheme (EBSS) for opex). In most cases, these revenue components depend on other inputs or drivers. In particular:

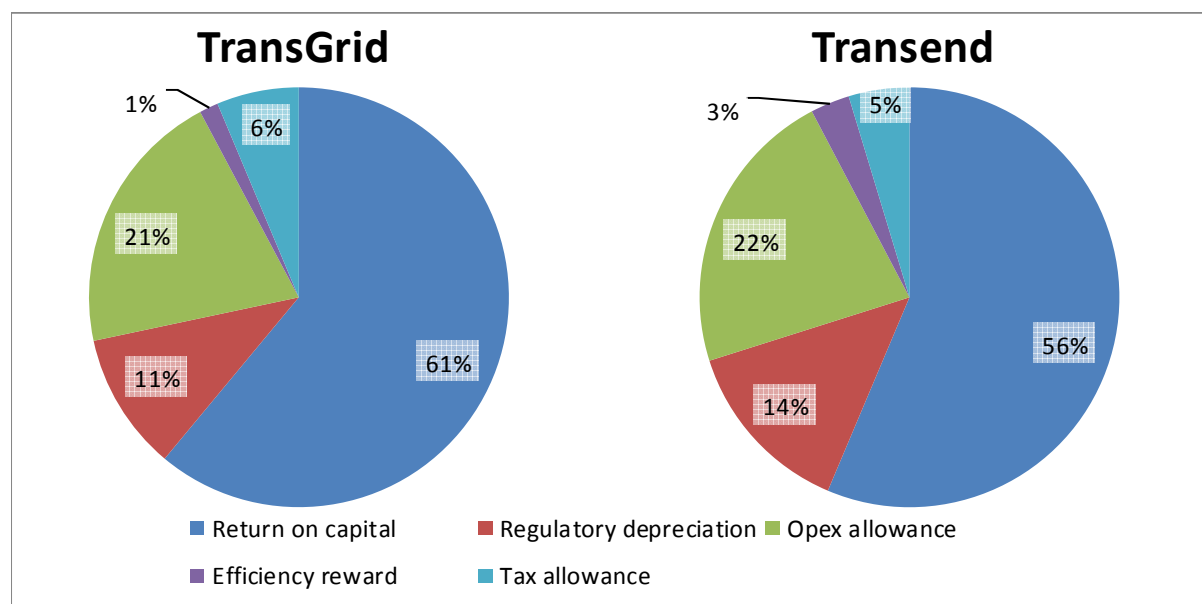
- The return on capital depends on the size of the regulatory asset base (RAB) and the rate of return or weighted average cost of capital (WACC). The RAB in turn depends on the forecast capex allowance approved going forward and the amount actually spent in the past. The RAB is also indexed for inflation. The WACC also in turn depends on various drivers such as the return on debt and return on equity, and specific parameters such as the risk free rate.
- Regulatory depreciation (or return of capital) depends on the RAB (and in turn capex) and the useful lives of the assets, which determine over how many years the capex will be recovered. Because the RAB and WACC both include components for inflation, regulatory depreciation

includes an offsetting inflation adjustment. This is to avoid the double counting of inflation when calculating total revenues.

- Opex depends on the various sources of operating expenses, including the size of the RAB.
- The cost of corporate income tax depends on the tax rate and all the inputs that determine the level of total revenue (including any rewards/penalties from schemes). It also depends, in particular, on the size of offsetting tax expenses (including tax depreciation) and the expected use of imputation credits by investors (γ).
- Scheme rewards/penalties depend on the particulars of the scheme, including the actual performance of the TNSP measured under the scheme.

Figure 4.3 shows the relative size of these five revenue components for TransGrid and Transend based on their transitional revenue proposals for the transitional and subsequent regulatory control periods. The return on capital (and its drivers such as RAB, capex and rate of return) makes up the largest proportion of total revenue at over 55 per cent. Opex makes up the next largest proportion at over 20 per cent and regulatory depreciation (and its drivers such as RAB, capex and useful asset lives) makes up over 10 per cent of total revenue. The remaining components of tax and scheme rewards/penalties make up less than 10 per cent of total revenue.

Figure 4.3 The relative size of the revenue components



Source: AER analysis, using proposed revenue figures for 2014–19.

The following sections set out our views of these key components based on a high level assessment of the limited information available to us at this time, including the transitional revenue proposals of TransGrid and Transend.

4.2.1 Rate of return

TransGrid proposed an indicative rate of return range from 8.8 to 9.5 per cent. This range included:³³

³³ TransGrid, *Transitional revenue proposal 2014/15*, January 2014, pp. 53–54.

- Return on debt – 7.4 per cent, based on an immediate transition to a portfolio return on debt approach.
- Return on equity – 10.7 per cent, based on a multiple model approach.

TransGrid did not propose any specific sub-parameters for either the return on debt or return on equity. Rather, it presented total return on debt and return on equity estimates.

Transend proposed an indicative rate of return range from 8.2–9.3 per cent. This range included:³⁴

- Return on debt – 7.7 per cent, calculated using the RBA’s published yield for 10 year BBB rated corporate bonds.
- Return on equity – 9.4 to 12.2 per cent, based on a limited application of the Guideline foundation model approach in estimating the return on equity for the transitional regulatory control period.³⁵ Specifically, Transend proposed values and/or ranges for equity beta (0.8 to 1.0) and the market risk premium (MRP) (6.5 to 8.1 per cent).

We have considered whether TransGrid and Transend have satisfactorily addressed the requirements in the NER. Specifically, the TNSPs are required to submit an indicative rate of return range which:³⁶

- takes into account available market information
- takes into account expected market trends
- has regard to the rate of return guideline published by the AER.

Much of the information the service providers submitted relies on information that was before the AER during the guideline process.³⁷ Our guideline was made taking into account this and other information and expected market trends and was published in December 2013. Nonetheless, the TNSPs have proposed departures from the guideline, the details of which are set out below.

The AER received a number of submissions that generally advocated a rate of return estimate based on the AER’s guideline:

- The Major Energy Users (MEU) submitted that for the transitional year, the WACC should be based on the current approach as applied most recently to SP AusNet.³⁸ Further, the MEU submitted it was concerned that the service providers have combined estimates from the old and new WACC (weighted average cost of capital) approaches in a way that results in an increased WACC.³⁹
- The Tasmanian Small Business Council submitted that it supported the use of the AER’s guideline estimates of the equity beta (0.7) to determine Transend’s transitional revenue.⁴⁰

³⁴ Transend, *Transitional revenue proposal 1 July 2014–30 June 2015*, January 2014, pp. 95–98.

³⁵ Transend, *Transitional revenue proposal 1 July 2014–30 June 2015*, January 2014, pp. 95–98.

³⁶ NER cl. 11.58.2(b)(2)

³⁷ AER, *Better regulation rate of return guideline*, December 2013.

³⁸ Major Energy Users, *Tasmanian electricity transmission revenue reset: Transend application for transition year 2014/15—A response*, February 2010, p. 10–11; Major Energy Users, *NSW electricity transmission revenue reset: TransGrid application for transition year 2014/15—A response*, February 2014, pp. 11–12.

³⁹ Major Energy Users, *Tasmanian electricity transmission revenue reset: Transend application for transition year 2014/15—A response*, February 2010, p. 10–11; Major Energy Users, *NSW electricity transmission revenue reset: TransGrid application for transition year 2014/15—A response*, February 2014, pp. 11–12.

⁴⁰ Tasmanian Small Business Council, *Transend transitional revenue proposal, 2014/15—Submission*, March 2014, pp. 21–22.

- The Public Interest Advocacy Centre (PIAC), while only directly addressing the distribution proposals, ‘strongly objected’ to proposed departures from the rate of return guideline and supported the application of guideline parameters and approaches in the transitional determination. In particular, the PIAC note that the guideline process included a comprehensive consultation process with a broad range of stakeholders, whereas the proposed departures have not been submitted to the same level of rigorous analysis.⁴¹ Further, on specific parameters, the PIAC made submissions also relevant to the transitional proposals. In particular, it submitted that:
 - we should continue to set the risk free rate as specified in the rate of return guideline, and not using long term historical averages⁴²
 - an equity beta of 0.7 overstates the non-diversifiable risks of an efficient benchmark Australian regulated network company, in light of the supportive regulatory regime. However, while the PIAC accepts the AER’s conclusion, it recommends the adoption of a value no higher than 0.7⁴³
 - we should apply the transition to the trailing average return on debt approach, as set out in the rate of return guideline. Further, the PIAC submitted that an immediate transition to the portfolio return on debt would result in an unequitable sharing of risks between consumers and service providers.⁴⁴

Specifically, TransGrid rejected the foundation model in the rate of return guideline and submitted it is:

...still undertaking analysis to support the rate of return elements of the full revenue proposal. Nevertheless, this transitional proposal provides the AER and all interested stakeholders with a clear guide on the approach TransGrid believes best fits the National Electricity Objective, the revenue and pricing principles, the NER and the rate of return objective.⁴⁵

Transend’s proposal submitted that it supported a limited application of the guideline foundation model and that its estimate for the return on debt was consistent with the guideline approach. However, it includes parameters, such as the equity beta (0.91), which substantially departs from the guideline point estimate (0.7).⁴⁶

In contrast, we have adopted the foundation model combined with some updated market information and market trends. This approach is generally consistent with submissions received from stakeholders. Our reasons for relying on the rate of return guideline are set out extensively in the guideline explanatory statement, but in summary:

- we rigorously and consistently assessed a wide range of information that could inform rate of return calculations, including relevant data and recent market trends and how this might be relevant to expected market trends
- we consulted widely with stakeholders, including consumers, to give us confidence that the final positions satisfied the NEO.

⁴¹ Public Interest Advocacy Centre Ltd, *The opening act: PIAC response to the Transitional Regulatory Proposals by the electricity network service providers in NSW for 2014-15*, March 2014, pp. 4–5.

⁴² Public Interest Advocacy Centre Ltd, *The opening act: PIAC response to the Transitional Regulatory Proposals by the electricity network service providers in NSW for 2014-15*, March 2014, pp. 20–21.

⁴³ Public Interest Advocacy Centre Ltd, *The opening act: PIAC response to the Transitional Regulatory Proposals by the electricity network service providers in NSW for 2014-15*, March 2014, pp. 23–24.

⁴⁴ Public Interest Advocacy Centre Ltd, *The opening act: PIAC response to the Transitional Regulatory Proposals by the electricity network service providers in NSW for 2014-15*, March 2014, pp. 27–30.

⁴⁵ TransGrid, *Transitional revenue proposal 2014/15*, January 2014, p. 48.

⁴⁶ Transend, *Transitional revenue proposal, Regulatory control period 1 July 2014–30 June 2015*, January 2014, pp. 97–98

Due to the nature of the transitional review and the task set out in the NER, we have had regard to the rate of return guideline to the extent possible. Specifically, we have applied the value of imputation credits set out in the guideline. Similarly, we have had regard to the guideline approach to estimate the return on debt, although we have yet to finalise selection of a third party data provider as specified in the guideline. As identified below, we have taken account of the RBA data series for the purposes of this transitional determination. To estimate the return on equity, we have primarily relied on application of the foundation model. There are other sources of information that will need to be considered in applying the guideline during the full determination process. Employing the approach set out in the guideline we have developed an indicative range to compare against the proposals submitted by TransGrid and Transend. We developed our indicative range by undertaking the following high level steps:

Our high level estimate of the return on equity based on the foundation model specified in the guideline is 8.9 per cent.⁴⁷ Whilst the CAPM is only one of a number of sources of evidence that we will use to estimate the return on equity, it is the foundation model and is likely to be significant in determining the final estimate. Our high level estimate is made up of:

- Risk free rate—4.3, based on 10 year commonwealth government security (CGS) yields over a recent 20 day averaging period starting in mid-December 2013.⁴⁸ This was close to the publication of the rate of return guideline, and gives us confidence the estimates are consistent with the same market conditions. However, we also note that the risk free rate has slightly decreased since this time.⁴⁹
- Market risk premium—6.5, based on the rate of return guideline point estimate.⁵⁰
- Equity beta—0.7, based on the rate of return guideline point estimate.⁵¹
- A return on debt between 6.7 and 7.5 per cent. The lower estimate in this range is based on the 7 year Bloomberg BBB rate fair value curve over the same recent 20 day averaging period, extrapolated to 10 years with paired bonds.⁵² The upper estimate in the range is based on the RBA's 10 year return on debt yield.⁵³ We are currently reviewing available data sources to estimate the return on debt. In particular, we will assess their suitability for determining the return on debt for regulated service providers.
- Combined, this return on debt and return on equity produces a WACC range of 7.6 to 8.1 per cent.

In order to minimise the risk of future price variations, we have applied a WACC of 8.1 per cent,⁵⁴ which is the top of our indicative range. This estimate process is not a full application of the rate of return guideline, which is not possible in the timeframe of the transitional review. However, it does give priority to sources of evidence and point estimates that we consider are appropriate for this high

⁴⁷ In line with the rate of return guideline, we have rounded this to one decimal place. See: AER, *Better regulation—Explanatory statement: Rate of return guideline*, December 2013, p. 52.

⁴⁸ Specifically, this was the averaging period used in the recent ACCC draft decision for NSW State Water. See: ACCC *Draft decision on State Water Pricing Application: 2014-15 – 2016-17—Attachments*, March 2014, p. 143

⁴⁹ Specifically, during the 20 business day period from 14 February 2014 to 13 March 2014, the risk free rate was 4.15 per cent.

⁵⁰ AER, *Better regulation—Explanatory statement: Rate of return guideline*, December 2013, p. 93.

⁵¹ AER, *Better regulation—Explanatory statement: Rate of return guideline*, December 2013, p. 86.

⁵² Specifically, this was the averaging period used in the recent ACCC draft decision for NSW State Water. See: ACCC *Draft decision on State Water Pricing Application: 2014-15 – 2016-17—Attachments*, March 2014, p. 143

⁵³ We calculated the RBA estimate using a simple average the RBA's spread to CGS values for the end of November 2013, December 2013 and January 2014.

⁵⁴ Applying a return on debt of 7.5 per cent and a return on equity of 8.9 per cent gives a WACC of 8.06 per cent.

level process. While we recognise that the final WACC estimate could be higher or lower than this estimate, we have taken account of current market conditions in preparing this estimate.

Based on this, our analysis indicates that TransGrid's and Transend's proposed rate of return ranges are overstated. Further, we consider that the proposed ranges do not appropriately take into account the available market information and expected market trends reflected in recent debt market data and in the return on equity analysis set out in the rate of return guideline. Comparing the upper bound of our range (8.1 per cent) to the point estimates applied by TransGrid and Transend to develop the transitional year revenue requirements (8.90 per cent and 8.43 per cent) suggests the service providers have overstated the rate of return by approximately 80 basis points and 30 basis points, respectively.

4.2.2 Opening regulatory asset base

Table 4.4 presents an overview of the proposed indicative opening RABs for TransGrid and Transend as at 1 July 2014. It compares the projected RABs from the 2009 AER transmission determinations against the proposed opening RAB values included in each TRP (reflecting actual capex over the 2009–13 period and estimates for 2013–14, actual depreciation and CPI outcomes). The proposed opening RABs at the start of the transitional regulatory control period for TransGrid and Transend are 6.8 per cent and 4.8 per cent below the projected values, respectively. The primary reason for the lower RABs is that actual capex over the current regulatory control period was lower than forecast.

We have undertaken a high level review of the proposed inputs in the AER's roll forward model (RFM) used to determine the opening RAB and found that they generally conform to our expectations. For the limited purposes of this transitional determination, we have adopted the TNSPs' proposed opening RABs for assessing the transitional revenue estimate. Nonetheless, we will have to review these opening RABs for the full determination process.

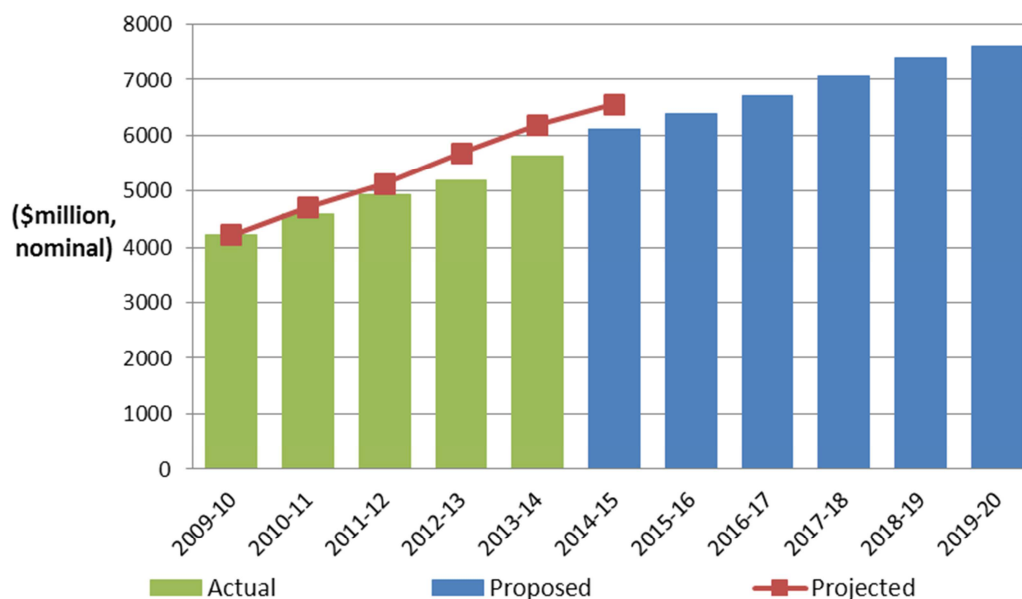
Table 4.4 Proposed opening RAB as at 1 July 2014 in comparison with projection (\$m, nominal)

	Projection	Actual	Difference (%)
TransGrid	6549	6104	-6.8%
Transend	1489	1417	-4.8%

Source: TransGrid TRP, Transend TRP and AER analysis.

Figure 4.4 shows the growth in TransGrid's RAB from 2009 to 2019. At the commencement of the current regulatory control period, TransGrid's opening RAB was \$4,218 million (nominal). Based on the TRP, the opening RAB as at 1 July 2014 is \$6,104 million (nominal). This compares to a RAB at 1 July 2014 of \$6,549 million (nominal), as projected in the 2009 transmission determination. The closing RAB at 30 June 2019 is proposed to be \$7,604 million (nominal), representing an average annual growth rate of 4.5 per cent. This closing RAB is largely driven by the proposed forecast capex as discussed below.

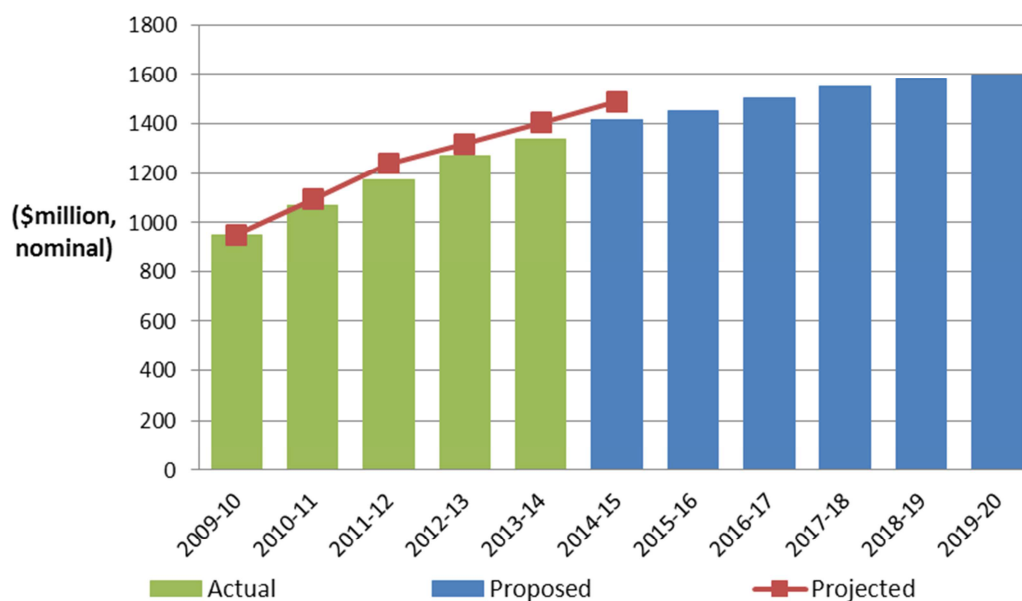
Figure 4.4 TransGrid’s opening RAB from 2009–19 (\$m, nominal)



Source: TransGrid TRP and AER analysis.

Figure 4.5 shows the growth in Transend’s RAB from 2009 to 2019. At the commencement of the current regulatory control period, Transend’s opening RAB was \$951 million (nominal). Based on the TRP, the opening RAB as at 1 July 2014 is \$1,417 million (nominal). This compares to a RAB at 1 July 2014 of \$1,489 million (nominal), as projected in the 2009 determination. The closing RAB at 30 June 2019 is proposed to be \$1,599 million (nominal), representing an average annual growth rate of 2.4 per cent.

Figure 4.5 Transend’s opening RAB from 2009–19 (\$m, nominal)



Source: Transend TRP and AER analysis.

4.2.3 Operating and capital expenditure

For the limited purposes of this determination, we have adopted Transend's and TransGrid's indicative opex and capex proposals as inputs into the placeholder MAR for each business. We have taken this approach given the AEMC only intended for this review to be a high level assessment as provided for in the transitional rules. This high level assessment is consistent with the limited information including indicative estimates only that the TNSPs were required to provide in their transitional proposals, and the time we had to assess these proposals. A more detailed review of opex and capex was not required and not possible.

We are only required to conduct a full building block assessment of TransGrid and Transend's opex and capex once we have received their full proposals that they are yet to submit for the purpose of the full determination. At that point in time, we will conduct a detailed assessment of TransGrid and Transend's forecast opex and capex using the approach outlined in our expenditure forecasting assessment guideline. We will have regard to all the relevant information in undertaking this assessment including information provided by TransGrid and Transend, stakeholder submissions, and comments from the Consumer Challenge Panel. As part of this process, the AER will apply a range of assessment techniques to test the prudence and efficiency of TransGrid and Transend's proposals. Accordingly, we have used these proposals for the limited purpose of applying the price variation test.

Any difference between the opex adopted for the purposes of this decision and our allowance for opex determined after our detailed assessment will be reflected in regulated revenues for the subsequent regulatory control period.

For the transitional proposals we do not need to review the TNSPs' forecast capex for the transitional regulatory control period as this does not impact on the revenue estimate for that year.⁵⁵

Appendix D provides a brief summary of:

- TransGrid and Transend's opex performance in the current regulatory control period, and their indicative proposed forecast opex for the transitional and subsequent regulatory control periods.
- TransGrid and Transend's capex performance in the current regulatory control period, and their indicative proposed forecast capex for the transitional and subsequent regulatory control periods.

4.2.4 Regulatory depreciation

The TNSPs provided indicative estimates for their forecasts of regulatory depreciation. We do not propose any adjustment to these amounts at this time. A significant driver of regulatory depreciation is the RAB. As discussed in section 4.2.2, we are not making any changes to the proposed RAB for the purposes of this transitional determination for either TNSP. The proposed asset lives used in the calculation of regulatory depreciation by each TNSP are generally consistent with what we would expect based on previous decisions on the lives of different types of assets and the timing of actual capex. For the limited purposes of this transitional determination, we have adopted the TNSPs' proposed asset lives for assessing the transitional revenue estimate. Nonetheless, we will have to review these asset lives for the full determination process.

⁵⁵ The post-tax revenue modelling approach takes the forecast capex incurred in one year and rolls it into the RAB at the end of the year. So forecast capex only starts receiving a return in the following year.

4.2.5 Cost of corporate income tax

The cost of corporate income tax building block is calculated in the AER's post-tax revenue model (PTRM) and is affected by all inputs. In terms of key inputs into the tax calculation, the TNSPs have used the AER's RFM to determine their opening tax asset bases and remaining tax asset lives. We also project similar tax asset bases using the RFM and remaining tax asset lives consistent with the TNSPs' proposals. For the limited purposes of this transitional determination, we have adopted the TNSPs' proposed opening tax asset bases for assessing the transitional revenue estimate. Nonetheless, we will have to review these inputs for the full determination process.

TransGrid's proposed corporate income tax allowance for the transitional and subsequent regulatory control periods is significantly higher than in the 2009–14 regulatory control period. Higher revenues (in particular efficiency rewards under the EBSS⁵⁶) and a lower gamma of 0.25 largely explain the increase in proposed corporate tax allowance.

Transend's proposed corporate income tax allowance for the transitional and subsequent regulatory control periods is similar to that in the current regulatory control period, despite Transend proposing a lower gamma of 0.25.

The TNSPs adopted a value of 0.25 for gamma. Both TNSPs based their proposals on material that was before the AER during the guideline process. For Transend, this includes the Australian Competition Tribunal's decision on gamma.⁵⁷

We note the material that both TransGrid and Transend have relied upon to support their gamma values. This was information that the AER took into account when making its rate of return guideline. Our assessment of this information is included in our reasoning for our guideline. In contrast to the proposals submitted by TransGrid and Transend, we set out in the rate of return guideline that our estimate of the value of gamma is 0.5 taking into account the information available to us.

For this transitional determination, we have also taken into account the submission of the Tasmanian Small Business Council which supports the use of the gamma value of 0.5 as set out in the AER's guideline.⁵⁸

The use of our estimate reduces the proposed cost of corporate income tax by 50 per cent. We consider that the costs of corporate income tax in the transitional revenue proposals are overstated based on the extensive analysis in our rate of return guideline. We therefore consider that for the purposes of this high level assessment in this determination, the value of gamma should be changed to 0.5 for this transitional determination.

⁵⁶ Unlike other revenue components, efficiency rewards have no offsetting tax expense associated with them. Therefore, a business receives a tax allowance proportional to the tax rate on this revenue component.

⁵⁷ Australian Competition Tribunal, *Application by Energex Limited (gamma) (No 5) [2011] ACompT9*, May 2011.

⁵⁸ Tasmanian Small Business Council, *Transend transitional revenue proposal, 2014/15—Submission*, March 2014, p. 22.

5 Other constituent decisions

5.1 Application of the EBSS in the transitional regulatory control period

As part of our Better Regulation program we consulted on and published version 2 of the Efficiency Benefit Sharing Scheme (EBSS). The operating expenditure efficiency benefit sharing scheme (EBSS) aims to provide a continuous incentive for TNSPs to pursue efficiency improvements in opex, and provide for a fair sharing of these between TNSPs and network users. Consumers benefit from improved efficiencies through lower regulated prices in the future.

In accordance with the Framework and Approach paper, the EBSS that applied to TransGrid and Transend in the current regulatory control period will apply in the transitional regulatory control period but modified to be in the terms of the version 2 EBSS as if the transitional regulatory control period were the first year of the subsequent regulatory control period.⁵⁹

5.2 Application of the STPIS in the transitional regulatory control period

Our national service target performance incentive scheme (STPIS) provides a financial incentive to TNSPs to maintain and improve service performance. The STPIS aims to safeguard service quality for customers that may otherwise be affected as TNSPs seek out cost efficiencies at the expense of service quality.

In accordance with the transitional rules, we will apply to TransGrid and Transend for the transitional regulatory control period the STPIS that applied to each in the current regulatory control period subject to the modifications set out in the Framework and Approach Paper.⁶⁰ To the extent that the MAR changes as a result of the full determination, any corresponding change in the application of the STPIS will be reflected in the full determination.⁶¹

Accordingly, for the transitional regulatory control period we will:

- continue to apply the service component of version 2 of the STPIS to TransGrid and Transend such that the existing values and parameters in their current determinations will apply
- modify the STPIS to apply the Market Impact Component (MIC) and Network Capability Component (NCC) of version 4 of the STPIS to TransGrid and Transend.

5.2.1 Service component

We will apply the service component of version 2 of the STPIS to TransGrid and Transend such that the existing values and parameters will apply in the transitional regulatory year. Table 5.1 and Table 5.2 set out the performance targets, caps and collars for each parameter to be applied for TransGrid and Transend respectively, in the transitional year.

⁵⁹ Clause 11.58.3(a)(3) and clause 11.58.3(g).

⁶⁰ Clause 11.58.3(a)(3) and clause 11.58.3(g).

⁶¹ At the time of the full determination, for the purpose of calculating the MAR, the subsequent regulatory control period comprises the transitional regulatory control period (as the first year of the subsequent regulatory control period) and all of the regulatory years of the subsequent regulatory control period, and the transitional regulatory control period is not a separate regulatory control period: NER clause 11.58.4(c). Accordingly, any adjustment under the STPIS for the purpose of the transitional regulatory control period and the subsequent regulatory control period will be to the MAR as determined in the full determination and will be based on the application of the STPIS in the corresponding period which commences 1 July 2014.

Table 5.1 AER’s transitional decision for TransGrid on parameter values for the service component of the STPIS

	Collar	Target	Cap	Weighting (% of MAR)
<i>Transmission circuit availability (%)</i>				
Transmission line availability	99.05	99.26	99.36	0.20
Transformer availability	97.33	98.61	98.89	0.15
Reactive plant availability	98.65	99.12	99.33	0.10
<i>Loss of supply event frequency (No.)</i>				
>0.05 (x) system minutes	7	4	2	0.25
>0.25 (y) system minutes	2	1	0	0.10
<i>Average outage duration (minutes)</i>				
Total	999	824	649	0.20

Source: AER, *TransGrid Transmission Determination 2009–10 to 2013–14*, table 4, 28 April 2009, p. 3.

Table 5.2 AER’s transitional decision for Transend on parameter values for the service component of the STPIS

	Collar	Target	Cap	Weighting (% of MAR)
<i>Transmission circuit availability (%)</i>				
Transmission circuit availability (critical)	97.90	99.13	99.75	0.20
Transmission circuit availability (non-critical)	98.48	98.97	99.47	0.10
Transformer circuit availability	98.67	99.28	99.90	0.15
<i>Loss of supply event frequency (No.)</i>				
>0.1 (x) system minutes	21	15	9	0.20
>1.0 (y) system minutes	4	2	0	0.35
<i>Average outage duration (minutes)</i>				
Transmission Lines	259	326	124	0.0
Transformers	1428	712	354	0.0

Source: AER, *Transend Transmission Determination 2009–10 to 2013–14*, table 4, 14 October 2009, p. 3.

5.2.2 Market impact component

Under version 4 of the STPIS, for the first half of the transitional year (1 July 2014 to 31 December 2014):

- the market impact parameter target is the average of the TNSPs' 2011, 2012 and 2013 annual performance
- the performance measure is the average of 2013 and 2014 annual performance.

The performance measure for the second half of the transitional year (1 January 2015 to 30 June 2015) together with the period 1 July 2015 to 31 December 2015 will be determined in early 2016 when the performance of the 2015 calendar year is calculated. For 2015:

- the market impact parameter target is the average of the TNSPs' 2012, 2013 and 2014 annual performance
- the performance measure is the average of 2014 and 2015 annual performance.

The 2011, 2012 and 2013 market impact performance data was requested via the Regulatory Information Notice process, and is due to be submitted on 31 May 2014, after which it will be validated and confirmed in our full determination. The MIC performance measure for 2014 will be determined after the market impact performance data has been validated (in April 2015).

5.2.3 Network capability component

The network capability component (NCC) was introduced in version 4 of the STPIS. It promotes the NEO by incentivising TNSPs to identify and implement low cost incremental changes to their networks that deliver substantial benefits to consumers. It does this by requiring TNSPs to reveal their existing network capability and identify low cost projects that will:

- improve network capability when most valued by customers or
- improve wholesale market outcomes at least cost.

Improved wholesale market outcomes should ultimately be passed onto consumers through reduced wholesale energy costs. The MEU has raised a number of concerns about the NCC in particular that the expected benefit does not have to be measured on completion to ensure that the benefit has actually been achieved.⁶² We note these concerns. It is important to recognise, however, that under the STPIS, the target should of itself result in a material benefit to consumers, if accepted by AEMO and if the priority project is approved by the AER. Also, where a priority improvement target has not been achieved, we can reduce any incentive payments to a TNSP taking into account a number of factors, including whether there has been an improvement in network capability resulting in a material benefit. Importantly, a target is taken not to have been achieved if the target has been achieved through network augmentation or replacement of existing network assets with a capital cost greater than outlined in the TNSP's proposal.⁶³

We accept TransGrid's proposed priority projects and improvement targets as set out in its network capability incentive parameter action plan (NCIPAP) because they meet the requirements of the

⁶² Major Energy Users, *Tasmanian electricity transmission revenue reset: Transend application for transition year 2014/15—A response*, February 2010, pp. 25–28; Major Energy Users, *NSW electricity transmission revenue reset: TransGrid application for transition year 2014/15—A response*, February 2014, pp. 19–20.

⁶³ AER, *Electricity TNSP, STPIS*, December 2012, clause 5.3, pp. 13–14.

STPIS. We considered AEMO's review of the NCIPAP when making our decision. Table 5.3 sets out our decision on TransGrid's priority projects and project rankings.

Table 5.3 AER's transitional decision on TransGrid's network capability priority projects (\$ 000s, 2013–14)

Project Ranking	Project circuit / injection point	Capex	Opex	Total
1	Current Transformer Secondary Ratios - Queensland – New South Wales Interconnector	55	0	55
2	Terminal Equipment Upgrades - 67 & 68 Murray – Dederang Switchbays	360	0	360
3	Protection & Metering Upgrades - 993 Line Protection & Metering Upgrade	90	0	90
4	Dynamic Line Ratings & Transmission Line Upgrading - 83 Liddell – Muswellbrook, 84 Liddell – Tamworth 330, 85 & 86 Tamworth 330 – Armidale & 88 Muswellbrook – Tamworth 330 330kV Lines	1,100	0	1,100
5	Protection & Metering Upgrades - 99P Line Protection & Metering Upgrade	50	0	50
6	Dynamic Line Ratings & Transmission Line Upgrading - 65 Murray – Upper Tumut & 66 Murray – Lower Tumut 330kV Lines	400	0	400
7	Control Schemes - Extension of Directlink Tripping Scheme	600	0	600
8	Protection Changes - 976 Line Configuration & Protection Changes	110	0	110
9	Terminal Equipment Upgrades - 94E Mt Piper 132 – Wallerawang 132 Switchbays	50	0	50
10	Dynamic Line Ratings & Transmission Line Upgrading - Northern 132kV System	1,000	0	1,000
11	Dynamic Line Ratings & Transmission Line Upgrading - Snowy – Yass & Canberra 330kV Lines	1,400	0	1,400
12	Control Schemes - Northern Reactive Plant Control Scheme	524	0	524
13	Dynamic Line Ratings & Transmission Line Upgrading - 4 & 5 Yass – Marulan, 9 Yass – Canberra, 61 Yass – Bannaby & 39 Bannaby – Sydney West 330kV Lines	2,600	0	2,600
14	Dynamic Line Ratings & Transmission Line Upgrading - 969 Tamworth 330 – Gunnedah 132kV Line	300	0	300
15	Terminal Equipment Upgrades - 81 & 82 Liddell – Newcastle & Tomago Lines	600	0	600
16	Capacitor Banks - Beryl Capacitor Bank	1,900	0	1,900
17	Travelling Wave Fault Location - Snowy Lines	2,211	0	2,211
18	Travelling Wave Fault Location - North Western 132kV System	877	0	877

19	Travelling Wave Fault Location - Northern 330kV Lines	1,895	0	1,895
20	Travelling Wave Fault Location - Far North Coast 132kV System	890	0	890
21	Quality of Supply - Point-on-Wave Switching for 132kV Capacitor Banks	631	0	631
22	Quality of Supply - Point-on-Wave Switching for 66kV & Below Capacitor Banks	4,500	0	4,500
23	Research Projects - Behaviour of Residential Solar During System Events	1,850	0	1,850
24	Travelling Wave Fault Location - Southern 330kV Network	1,347	0	1,347
25	Travelling Wave Fault Location - Western 220kV Network	877	0	877
26	Remote Information - Remote Interrogation of Protection Relays	1000	0	1,000
27	Communications - Communications to Albury, ANM & Hume Substations	4,200	0	4,200
28	Research Projects - Energy Storage	4,900	0	4,900
Total		36,317		36,317

Source: TransGrid, *Transitional revenue proposal 2014/15, Appendix NCIPAP*, 31 January 2014. AEMO, *AEMO endorsement of TransGrid Network Capability Incentive Parameter Action Plan (NCIPAP) for 1 July 2014 – 30 June 2019*, 4 February 2014.

Transend

We do not accept Transend's proposed priority projects and improvement targets set out in its network capability incentive parameter action plan (NCIPAP) because they do not comply with the requirements in clause 5.2 of the STPIS. Specifically, Transend's proposed total expenditure of the priority projects is greater than 1 per cent of its maximum allowed revenue proposed in its transitional regulatory proposal, which is not consistent with clause 5.2(b) of the STPIS which only allows for up to 1 per cent of proposed MAR. The Tasmanian Small Business Council submits that the AER needs to carefully assess the proposed projects to ensure that it is robust and capable of delivering the benefits claimed and the costs identified. For example, the Council comments that Transend has provided no details about benefits and costs, or how they have been calculated.⁶⁴ We agree that the proposed projects should be carefully scrutinised in terms of net benefits to consumers. In accordance with the STPIS we are mindful that these projects have been endorsed by AEMO which has assessed these priority improvement projects.

We have removed two proposed projects (the continued operation and maintenance of existing transmission line dynamic rating systems - the whole network, and maintenance of prescribed special protection schemes – various circuits and connection sites across the network) from Transend's proposed NCIPAP. This is because the scheme only allows for NCC projects that improve network capability. The two proposed projects that we have removed instead relate to the continued operation and maintenance of existing network capability. Those projects do not improve, through operational

⁶⁴ Tasmanian Small Business Council, *Transend transitional revenue proposal, 2014/15—Submission*, March 2014, p. 24.

and/or minor capital expenditure, the network capability for some of the circuits or injection points, as required under the scheme.

Those projects also have not been endorsed by the AEMO, as required under the scheme.⁶⁵

Notwithstanding the issues with these projects, we consider they are examples of good historical practice by Transend to maximise the capability of assets. The AER may consider broadening the scope of this component in terms of how to incentivise TNSPs to maintain existing capability in its next review of the Transmission STPIS in 2015.

Excluding the above-mentioned two projects from the NCIPAP reduces the total expenditure to around 1.4 per cent of Transend's proposed MAR in the TRP, which is still above the 1 per cent of its proposed MAR as required by the scheme. As a result we have also removed three additional projects as detailed below:

- Installation of modern fault location functionality for more accurate fault location on the identified circuits - Palmerston-Hadspen No 1 & 2, Palmerston-Sheffield and Sheffield-Burnie No 1 220 kV transmission circuits),
- Install a second 110 kV bus coupler dead tank circuit breaker in series with the existing bus coupler circuit breaker - Chapel Street Substation),
- George Town Substation replacement of 220 kV disconnectors with remotely operable disconnectors).

We have removed those projects according to the 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.⁶⁶

Table 5.3 sets out our decision on Transend's priority projects and project rankings.

Table 5.4 AER's transitional decision on Transend's network capability priority projects (\$ 000s, 2013–14)

Project Ranking	Project circuit / injection point	Capex	Opex	Total
1	Fifteen minute transient ratings for transmission lines - All transmission lines that are currently controlled through AEMO's generation dispatch	40	0	40
2	Dynamic rating of Knights Road supply transformers - Knights Road Substation	150	16	166
3	Dynamic rating of Boyer Substation supply transformers - Boyer Substation	180	20	200
4	Installation of new line fault indicators - Farrell-Que-Savage River-Hampshire, Farrell-Rosebery-Queenstown, Norwood-Scottsdale-Derby and Lindisfarne-Sorell-Triabunna 110 kV transmission circuits	230	19	249

⁶⁵ AER, *Electricity TNSP, STPIS*, December 2012, clause 5.2(h)(i)(j).

⁶⁶ AEMO, *AEMO endorsement of Transend Network Capability Incentive Parameter Action Plan (NCIPAP) for 1 July 2014 – 30 June 2019*, 4 February 2014.

5	Review and optimisation of Operational Margins for Transend limit equations - All transmission circuits whose flow is controlled by AEMO constraint equations	0	35	35
6	Line fault indicator (LFI) remote communications - Palmerston-Avoca and Knights Road-Huon River-Kermadie 110kV transmission circuits	60	0	60
7	George Town automatic voltage control scheme (GTAVCS) 2.0 - Basslink Tasmania-Victoria interconnector	480	0	480
8	Dynamic rating of all 220/110 kV network transformers - All 220/110kV network transformers	900	58	958
9	Restraining P1 bay conductor at Palmerston Substation - Waddamana-Palmerston No 2 110kV transmission circuit	50	0	50
10	Replace disconnectors, CT and bay conductor to achieve line rating increase and reduce market constraints - Sheffield-George Town 220 kV transmission line	1120	0	1120
11	Weather station telemetry renewal - Weather stations at Creek Road, Chapel Street, Devonport, Trevallyn, Hadspen, Sheffield, and Farrell substations	1050	0	1050
12	Upgrade of dead end fittings on selected transmission lines - Liapootah-Waddamana-Palmerston No 1, Liapootah-Cluny-Repulse-Chapel Street No 1, Liapootah-Chapel Street No 2 and George Town-Comalco No 4 & 5 220 kV transmission circuits. Hadspen-Norwood No 1 & 2 110 kV transmission circuits.	840	0	840
13	Installation of second 220 kV bus coupler circuit breaker at Farrell Substation - Farrell Substation	665	120	785
14	Castle Forbes Bay Tee Switching Station disconnector upgrade - Castle Forbes Bay Tee Switching Station	250	0	250
15	Transmission line surge diverter installation and tower footing earthing improvements - Sheffield-Farrell 1 & 2, Farrell-Reece 1 & 2, Farrell-John Butters 220kV and Farrell-Rosebery-Queenstown 110 kV transmission circuits	550		550
16	Substandard spans verification and rectification – Multiple	3720	0	3720
Total		10,285	268	10,553

Source: Transend, *Transitional revenue proposal 1 July 2014 – 30 June 15, Appendix 1 – Network capability incentive parameter action plan*, 31 January 2014. AEMO, *AEMO endorsement of Transend Network Capability Incentive Parameter Action Plan (NCIPAP) for 1 July 2014 – 30 June 2019*, 4 February 2014.

5.3 Application of the CESS in the transitional regulatory control period

The capital expenditure sharing scheme (CESS) provides financial rewards for TNSPs whose capex becomes more efficient and financial penalties for those that become less efficient. The CESS approximates efficiency gains and efficiency losses by calculating the difference between forecast and actual capex. It shares these gains or losses between distributors and network users. Consumers benefit from improved efficiency through lower regulated prices.

The transitional rules specify that no CESS applies to the NSW/ACT and Tasmanian TNSPs for the transitional regulatory control period.⁶⁷

Our transitional decision therefore is that no CESS will apply in the transitional regulatory control period to TransGrid or Transend.

5.4 Application of the small-scale incentive scheme in the transitional regulatory control period

The rules state that we may develop a small-scale incentive scheme or schemes.⁶⁸ We have not developed any such scheme. In addition, the transitional rules specify that no small-scale incentive scheme applies to the NSW/TAS TNSPs for the transitional regulatory control period.⁶⁹

Our transitional decision therefore is that no small-scale incentive scheme will apply in the transitional regulatory control period to TransGrid or Transend.

5.5 Pass through event

Cost pass through arrangements provide for adjustments to the allowed revenue if a non-controllable predefined event occurs that leads to a material change in a TNSP's costs.

TransGrid proposes the following events should be treated as pass through events providing their cost exceeds the materiality threshold defined in the Rules:⁷⁰

- Insurance cap event
- Terrorism event
- Insurer default
- Cyber-related external attack
- Gradual environmental contamination event.

Transend proposes the following events should be treated as pass through events providing their cost exceeds the materiality threshold defined in the Rules:⁷¹

- Natural disaster event
- Insurance cap event.

The Tasmanian Small Business Council does not support these proposals on the basis that Transend, amongst other reasons, should be encouraged to manage the impact of these risks.⁷²

While we note this submission, clause 11.58.3(a)(4) of the rules prescribes that for transmission the "terrorism event" will be the additional pass through event that is to apply for the transitional regulatory

⁶⁷ NER, clause 11.58.3(a)(2).

⁶⁸ NER, clause 6A.7.5.

⁶⁹ NER, clause 11.58.3(a)(2).

⁷⁰ TransGrid, *Transitional revenue proposal 2014/15*, January 2014, pp. 73–74.

⁷¹ Transend, *Transitional revenue proposal, Regulatory control period 1 July 2014–30 June 2015*, January 2014, pp. 77–78.

⁷² Tasmanian Small Business Council, *Transend transitional revenue proposal, 2014/15—Submission*, March 2014, p. 23.

control period.⁷³ Further, the AEMC as part of the transitional rules has omitted the ability for a TNSP to nominate pass through events that have not already been approved in its current determination.⁷⁴ Therefore we are not able to approve any additional pass through events other than the terrorism event for the transitional regulatory control period. Accordingly, we approve the terrorism event for both TransGrid and Transend in accordance with clause 11.58.3(a)(4) and do not approve the other nominated events proposed by TransGrid and Transend.

5.6 Negotiating framework

In accordance with clause 11.58.3(a)(5) of the rules, we approve the negotiating framework which was approved as part of the transmission determination for TransGrid and Transend for the current regulatory control period to be applied to the transitional regulatory control period.⁷⁵

5.7 Negotiated transmission service criteria

In accordance with clause 11.58.3(a)(6) of the rules, we approve the negotiated transmission service criteria which was approved as part of the transmission determination for TransGrid and Transend for the current regulatory control period to be applied to the transitional regulatory control period.⁷⁶

5.8 Pricing methodology

In accordance with clause 11.58.3(a)(7) of the rules, we approve the pricing methodology which was approved as part of the transmission determination for TransGrid and Transend, for the current regulatory control period to be applied to the transitional regulatory control period.⁷⁷

⁷³ NER, clause 11.58.3(a)(4).

⁷⁴ NER, clause 11.57.2(a).

⁷⁵ NER, clause 11.58.3(a)(5).

⁷⁶ NER, clause 11.58.3(a)(6).

⁷⁷ NER, clause 11.58.3(a)(7).

A AER's determination – TransGrid

A.1 Commencement and length of regulatory control period

The AER determines that the transitional regulatory control period will be one year, commencing on 1 July 2014 and ending on 30 June 2015.

A.2 Method for calculating total revenue cap

The AER determines an estimated total MAR of \$845.4 million (\$ nominal) for TransGrid for the 2014–15 transitional regulatory control period as shown in Table A.1. The estimated total MAR is also known as the total revenue cap.

Table A.1 AER final determination on TransGrid's annual expected maximum allowed revenue (\$ million, nominal)

	2014–15	Total
Expected MAR (smoothed)	845.4	845.4

Source: AER analysis.

A.3 Service target performance incentive scheme parameters

The AER determines the values for the performance targets, caps, collars and weightings for each of the parameters for the service component of the service target performance incentive scheme (STPIS) applicable to TransGrid for the 2014–15 transitional regulatory control period are those shown in Table A.2.

Table A.2 TransGrid service component performance targets, caps, collars and weightings to apply for the 2014–15 transitional regulatory control period

	Collar	Target	Cap	Weighting (% of MAR)
<i>Transmission circuit availability (%)</i>				
Transmission line availability	99.05	99.26	99.36	0.20
Transformer availability	97.33	98.61	98.89	0.15
Reactive plant availability	98.65	99.12	99.33	0.10
<i>Loss of supply event frequency (No.)</i>				
>0.05 (x) system minutes	7	4	2	0.25
>0.25 (y) system minutes	2	1	0	0.10
<i>Average outage duration (minutes)</i>				
Total	999	824	649	0.20

Source: AER analysis.

The AER determines that the market impact component (MIC) parameter values will be calculated in accordance with section four and appendices C and F of the STPIS.⁷⁸ For the first half of the transitional year (1 July 2014 to 31 December 2014):

- the market impact parameter target is the average of TransGrid's 2011, 2012 and 2013 annual performance
- the performance measure is the average of 2013 and 2014 annual performance.

For the second half of the transitional year (1 January 2015 to 30 June 2015) together with the period 1 July 2015 to 31 December 2015:

- the market impact parameter target is the average of TransGrid's 2012, 2013 and 2014 annual performance
- the performance measure is the average of 2014 and 2015 annual performance.

The MIC performance target for 2014 will be set in our full determination for TransGrid.

The AER determines that for the network capability component the priority projects and project rankings shown in Table A.3 will apply to TransGrid during the transitional regulatory control period.

Table A.3 AER's transitional decision on TransGrid's network capability priority projects (\$ 000s, 2013–14)

Project Ranking	Project circuit / injection point	Capex	Opex	Total
1	Current Transformer Secondary Ratios - Queensland – New South Wales Interconnector	55	0	55
2	Terminal Equipment Upgrades - 67 & 68 Murray – Dederang Switchbays	360	0	360
3	Protection & Metering Upgrades - 993 Line Protection & Metering Upgrade	90	0	90
4	Dynamic Line Ratings & Transmission Line Uprating - 83 Liddell – Muswellbrook, 84 Liddell – Tamworth 330, 85 & 86 Tamworth 330 – Armidale & 88 Muswellbrook – Tamworth 330 330kV Lines	1,100	0	1,100
5	Protection & Metering Upgrades - 99P Line Protection & Metering Upgrade	50	0	50
6	Dynamic Line Ratings & Transmission Line Uprating - 65 Murray – Upper Tumut & 66 Murray – Lower Tumut 330kV Lines	400	0	400
7	Control Schemes - Extension of Directlink Tripping Scheme	600	0	600
8	Protection Changes - 976 Line Configuration & Protection Changes	110	0	110
9	Terminal Equipment Upgrades - 94E Mt Piper 132 – Wallerawang 132 Switchbays	50	0	50

⁷⁸ AER, *Final – Service target performance incentive scheme*, December 2012.

10	Dynamic Line Ratings & Transmission Line Uprating - Northern 132kV System	1,000	0	1,000
11	Dynamic Line Ratings & Transmission Line Uprating - Snowy – Yass & Canberra 330kV Lines	1,400	0	1,400
12	Control Schemes - Northern Reactive Plant Control Scheme	524	0	524
13	Dynamic Line Ratings & Transmission Line Uprating - 4 & 5 Yass – Marulan, 9 Yass – Canberra, 61 Yass – Bannaby & 39 Bannaby – Sydney West 330kV Lines	2,600	0	2,600
14	Dynamic Line Ratings & Transmission Line Uprating - 969 Tamworth 330 – Gunnedah 132kV Line	300	0	300
15	Terminal Equipment Upgrades - 81 & 82 Liddell – Newcastle & Tomago Lines	600	0	600
16	Capacitor Banks - Beryl Capacitor Bank	1,900	0	1,900
17	Travelling Wave Fault Location - Snowy Lines	2,211	0	2,211
18	Travelling Wave Fault Location - North Western 132kV System	877	0	877
19	Travelling Wave Fault Location - Northern 330kV Lines	1,895	0	1,895
20	Travelling Wave Fault Location - Far North Coast 132kV System	890	0	890
21	Quality of Supply - Point-on-Wave Switching for 132kV Capacitor Banks	631	0	631
22	Quality of Supply - Point-on-Wave Switching for 66kV & Below Capacitor Banks	4,500	0	4,500
23	Research Projects - Behaviour of Residential Solar During System Events	1,850	0	1,850
24	Travelling Wave Fault Location - Southern 330kV Network	1,347	0	1,347
25	Travelling Wave Fault Location - Western 220kV Network	877	0	877
26	Remote Information - Remote Interrogation of Protection Relays	1000	0	1,000
27	Communications - Communications to Albury, ANM & Hume Substations	4,200	0	4,200
28	Research Projects - Energy Storage	4,900	0	4,900
Total		36,317		36,317

Source: AER analysis.

A.4 Efficiency benefit sharing scheme parameters

The AER determines that the efficiency benefit sharing scheme that applied to TransGrid in the current regulatory control period will apply in the transitional regulatory control period but modified to

be in the terms of version 2 of the efficiency benefit sharing scheme as if the transitional regulatory control period was the first year of the subsequent regulatory control period.

A.5 Application of the capital expenditure sharing scheme in the transitional regulatory control period

The AER determines that no capital expenditure sharing scheme applies to TransGrid for the transitional regulatory control period.

A.6 Application of the small-scale incentive scheme in the transitional regulatory control period

The AER determines that no small-scale incentive scheme applies to TransGrid for the transitional regulatory control period.

A.7 Pass through event

The AER determines that the "terrorism event" as defined in the Rules immediately prior to the date the National Electricity Amendment (Cost pass through arrangements for Network Service Providers) Rule 2012 came into force is an additional pass through event that is to apply for the transitional regulatory control period.

A.8 Negotiating framework

The AER determines that the negotiating framework that is to apply to TransGrid for the transitional regulatory control period is the negotiating framework that was approved as part of the transmission determination for the current regulatory control period of TransGrid.

A.9 Negotiated transmission service criteria

The AER determines that the Negotiated Transmission Service Criteria for TransGrid are the Negotiated Transmission Service Criteria that were specified as part of the transmission determination for the current regulatory control period of TransGrid.

A.10 Pricing methodology

The AER determines that the pricing methodology for TransGrid is the pricing methodology which was approved as part of the transmission determination for the current regulatory control period of TransGrid.

B AER's determination – Transend

B.1 Commencement and length of regulatory control period

The AER determines that the transitional regulatory control period will be one year, commencing on 1 July 2014 and ending on 30 June 2015.

B.2 Method for calculating total revenue cap

The AER determines an estimated total MAR of \$205.1 million (\$ nominal) for Transend for the 2014–15 transitional regulatory control period as shown in Table B.1. The estimated total MAR is also known as the total revenue cap.

Table B.1 AER final determination on Transend's annual expected maximum allowed revenue (\$ million, nominal)

	2014–15	Total
Expected MAR (smoothed)	205.1	205.1

Source: AER analysis.

B.3 Service target performance incentive scheme parameters

The AER determines the values for the performance targets, caps, collars and weightings for each of the parameters for the service component of the service target performance incentive scheme (STPIS) applicable to Transend for the 2014–15 transitional regulatory control period are those shown in Table B.2.

Table B.2 Transend service component performance targets, caps, collars and weightings to apply for the 2014–15 transitional regulatory control period

	Collar	Target	Cap	Weighting (% of MAR)
<i>Circuit availability (%)</i>				
Transmission circuit availability (critical)	97.90	99.13	99.75	0.20
Transmission circuit availability (non-critical)	98.48	98.97	99.47	0.10
Transformer circuit availability	98.67	99.28	99.90	0.15
<i>Loss of supply event frequency (No.)</i>				
>0.1 (x) system minutes	21	15	9	0.20
>1.0 (y) system minutes	4	2	0	0.35
<i>Average outage duration (minutes)</i>				

Transmission Lines	259	326	124	0.0
Transformers	1428	712	354	0.0

Source: AER analysis.

The AER determines that the market impact component (MIC) parameter values will be calculated in accordance with section four and appendices C and F of the STPIS.⁷⁹ For the first half of the transitional year (1 July 2014 to 31 December 2014):

- the market impact parameter target is the average of the Transend's 2011, 2012 and 2013 annual performance
- the performance measure is the average of 2013 and 2014 annual performance.

For the second half of the transitional year (1 January 2015 to 30 June 2015) together with the period 1 July 2015 to 31 December 2015:

- the market impact parameter target is the average of the Transend's 2012, 2013 and 2014 annual performance
- the performance measure is the average of 2014 and 2015 annual performance.

The MIC performance target for 2014 will be set in our full determination for Transend.

The AER determines that for the network capability component the priority projects and project rankings shown in Table B.3 will apply to Transend during the transitional regulatory control period.

Table B.3 AER's transitional decision on Transend's network capability priority projects (\$ 000s, 2013–14)

Project Ranking	Project circuit / injection point	Capex	Opex	Total
1	Fifteen minute transient ratings for transmission lines - All transmission lines that are currently controlled through AEMO's generation dispatch	40	0	40
2	Dynamic rating of Knights Road supply transformers - Knights Road Substation	150	16	166
3	Dynamic rating of Boyer Substation supply transformers - Boyer Substation	180	20	200
4	Installation of new line fault indicators - Farrell-Que-Savage River-Hampshire, Farrell-Rosebery-Queenstown, Norwood-Scottsdale-Derby and Lindisfame-Sorell-Triabunna 110 kV transmission circuits	230	19	249
5	Review and optimisation of Operational Margins for Transend limit equations - All transmission circuits whose flow is controlled by AEMO constraint equations	0	35	35
6	Line fault indicator (LFI) remote communications - Palmerston-Avoca and Knights Road-Huon River-Kermandie 110kV transmission circuits	60	0	60
7	George Town automatic voltage control scheme (GTAVCS) 2.0 - Basslink	480	0	480

⁷⁹ AER, *Final – Service target performance incentive scheme*, December 2012.

Tasmania-Victoria interconnector

8	Dynamic rating of all 220/110 kV network transformers - All 220/110kV network transformers	900	58	958
9	Restricting P1 bay conductor at Palmerston Substation - Waddamana-Palmerston No 2 110kV transmission circuit	50	0	50
10	Replace disconnectors, CT and bay conductor to achieve line rating increase and reduce market constraints - Sheffield-George Town 220 kV transmission line	1120	0	1120
11	Weather station telemetry renewal - Weather stations at Creek Road, Chapel Street, Devonport, Trevallyn, Hadspen, Sheffield, and Farrell substations	1050	0	1050
12	Upgrade of dead end fittings on selected transmission lines - Liapootah-Waddamana-Palmerston No 1, Liapootah-Cluny-Repulse-Chapel Street No 1, Liapootah-Chapel Street No 2 and George Town-Comalco No 4 & 5 220 kV transmission circuits. Hadspen-Norwood No 1 & 2 110 kV transmission circuits.	840	0	840
13	Installation of second 220 kV bus coupler circuit breaker at Farrell Substation - Farrell Substation	665	120	785
14	Castle Forbes Bay Tee Switching Station disconnector upgrade - Castle Forbes Bay Tee Switching Station	250	0	250
15	Transmission line surge diverter installation and tower footing earthing improvements - Sheffield-Farrell 1 & 2, Farrell-Reece 1 & 2, Farrell-John Butters 220kV and Farrell-Rosebery-Queenstown 110 kV transmission circuits	550		550
16	Substandard spans verification and rectification – Multiple	3720	0	3720
Total		10,285	268	10,553

Source: AER analysis.

B.4 Efficiency benefit sharing scheme parameters

The AER determines that the efficiency benefit sharing scheme that applied to Transend in the current regulatory control period will apply in the transitional regulatory control period but modified to be in the terms of version 2 of the efficiency benefit sharing scheme as if the transitional regulatory control period was the first year of the subsequent regulatory control period.

B.5 Application of the capital expenditure sharing scheme in the transitional regulatory control period

The AER determines that no capital expenditure sharing scheme applies to Transend for the transitional regulatory control period.

B.6 Application of the small-scale incentive scheme in the transitional regulatory control period

The AER determines that no small-scale incentive scheme applies to Transend for the transitional regulatory control period.

B.7 Pass through event

The AER determines that the "terrorism event" as defined in the Rules immediately prior to the date the National Electricity Amendment (Cost pass through arrangements for Network Service Providers) Rule 2012 came into force is an additional pass through event that is to apply for the transitional regulatory control period.

B.8 Negotiating framework

The AER determines that the negotiating framework that is to apply to Transend for the transitional regulatory control period is the negotiating framework that was approved as part of the transmission determination for the current regulatory control period of Transend.

B.9 Negotiated transmission service criteria

The AER determines that the Negotiated Transmission Service Criteria for Transend are the Negotiated Transmission Service Criteria that were specified as part of the transmission determination for the current regulatory control period of Transend.

B.10 Pricing methodology

The AER determines that the pricing methodology for Transend is the pricing methodology which was approved as part of the transmission determination for the current regulatory control period of Transend.

C List of submissions

Table C.1 Submissions to TransGrid

Date	Respondent
3 March 2014	The National Generators Forum (NGF)
3 March 2014	Ben Crossling, The Australian National University
4 March 2014	Major Energy Users Inc (MEU)
4 March 2014	The Public Interest Advocacy Centre (PIAC)

Table C.2 Submissions to Transend

Date	Respondent
3 March 2014	The National Generators Forum (NGF)
4 March 2014	Major Energy Users Inc (MEU)
12 March 2014	Tasmania Small Business Council (TSBC)

D Summary of TNSPs' transitional revenue proposals

D.1 TransGrid

MAR

Table D.1 shows TransGrid's proposed total revenue for each year of the 2014–19 period, including the building blocks and TransGrid's proposed smoothing.⁸⁰

Table D.1 TransGrid's proposed building blocks and total revenue (\$m, nominal)

Building blocks	2013–14	2014–15	2015–16	2016–17	2017–18	2018–19
Return on capital		543	569	596	629	657
Return of capital		92	104	116	98	110
Operating expenditure		192	196	199	206	216
Efficiency carryover		25	10	12	21	4
Net tax allowance		46	49	69	71	75
Total revenue (unsmoothed)		897	929	992	1026	1062
Total revenue (smoothed)	863^a	930	953	977	1002	1027
Change ^b (%)		7.7%	2.5%	2.5%	2.5%	2.5%

Source: TransGrid, *Transitional revenue proposal 2014/15*, 31 January 2014, p. 9, 64–65; AER calculations.

Notes:

a This figure is the revenue TransGrid estimates it will recover in 2013–14 (not the allowed revenue from the AER's 2009 determination), as discussed further below.

b This row shows the year-on-year change in total nominal revenues. It should not be interpreted as the X-factor change from year to year.

In its transitional revenue proposal, TransGrid stated that the AER allowance for 2013–14 revenue was \$934 million.⁸¹ In February 2013, TransGrid announced a revenue freeze for prescribed services for 2013–14.⁸² As a result, TransGrid expected that actual revenues for 2013–14 will be \$863 million, and this is the amount shown in Table D.1.⁸³ TransGrid is able to recoup the \$71 million under-recovery across the 2014–19 period.⁸⁴

The key determinants of the building blocks from TransGrid's proposal (opex, capex, rate of return and RAB) are separately presented below. TransGrid's proposal also included details on:

- Regulatory depreciation—TransGrid proposed to use straight-line depreciation as calculated in the PTRM, and put forward a schedule of asset lives.⁸⁵ Its depreciation forecasts (including the net effect of indexation) are included in the RAB roll forward tables presented below.

⁸⁰ To derive these nominal figures, TransGrid assumes inflation of 2.5 per cent across the period. TransGrid, *Transitional revenue proposal 2014/15*, 31 January 2014, p. 62.

⁸¹ TransGrid, *Transitional revenue proposal 2014/15*, 31 January 2014, p. 65.

⁸² TransGrid, *Transitional revenue proposal 2014/15*, 31 January 2014, p. 65.

⁸³ This is because the \$863 million figure is the appropriate starting point for the price variation assessment we have undertaken.

⁸⁴ Such a recovery would occur through TransGrid's annual pricing process, not as part of this determination.

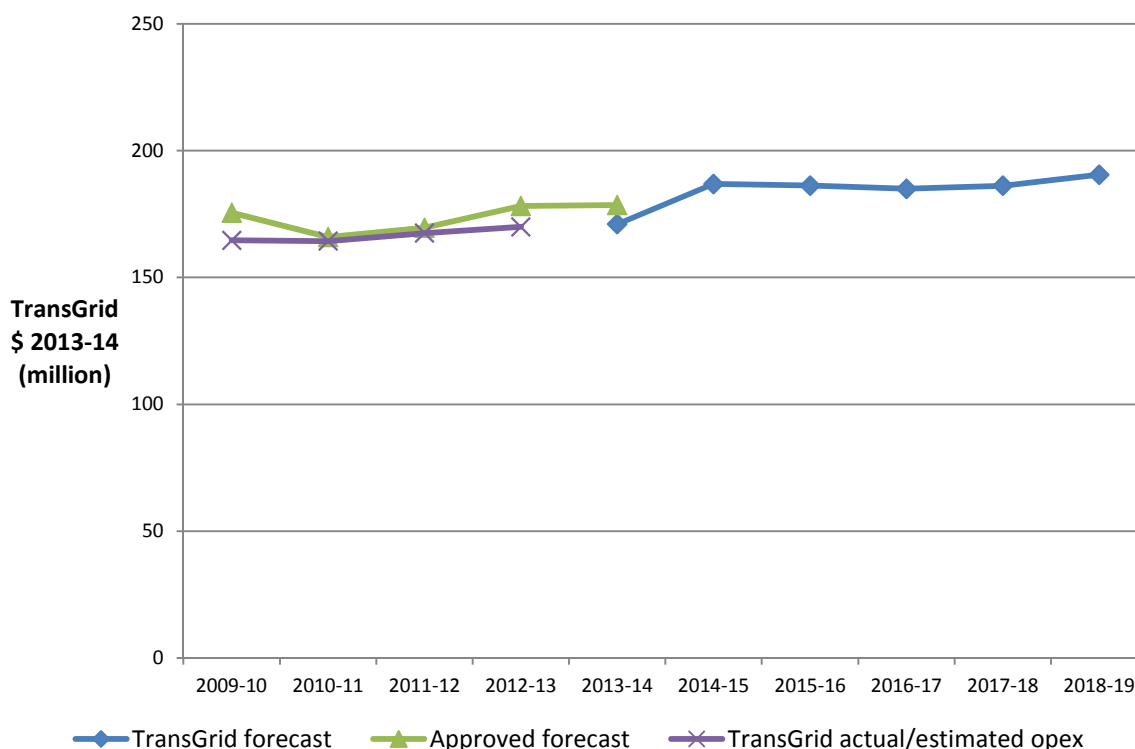
⁸⁵ TransGrid, *Transitional revenue proposal 2014/15*, January 2014, pp. 56–58.

- Cost of corporate income tax—TransGrid submitted taxation calculations using the PTRM, which involves calculating the indicative tax payable and then reducing its tax allowance with respect to the value of imputation credits.⁸⁶ TransGrid’s proposed gamma figure (assumed value of imputation credits) is discussed below in the rate of return section.
- Efficiency carryovers—TransGrid proposed a positive carryover allowance reflecting past efficiency gains associated with its opex (under the EBSS) over the current regulatory control period.⁸⁷

Opex

TransGrid has forecast average annual opex of \$186.9 million (\$2013–14) in the transitional and subsequent regulatory control periods.⁸⁸ This is a 12.2 per cent increase in its average annual opex in the first four years of the current regulatory control period. Figure D.1 compares TransGrid’s opex in the current regulatory control period to its approved allowance and its forecast opex in the transitional and subsequent regulatory control periods.

Figure D.1 TransGrid’s opex in the 2009-14 and 2014-19 periods (\$ million, 2013-14)



TransGrid has forecast its opex using the following methodology.

For its forecast base level of expenditure:⁸⁹

- Maintenance expenditure is based on work volumes forecast by its maintenance scheduling system and unit rates from 2012–13

⁸⁶ TransGrid, *Transitional revenue proposal 2014/15*, January 2014, pp. 59–60.

⁸⁷ TransGrid, *Transitional revenue proposal 2014/15*, January 2014, pp. 67–68.

⁸⁸ Actual opex is opex less movement in provisions.

⁸⁹ TransGrid, *Transitional revenue proposal 2014/15*, January 2014, p. 37.

- Major operating projects as a zero-based (i.e. forecast using a bottom up methodology) portfolio of projects
- Insurance, self-insurance, network support and debt-raising costs as zero-based forecasts
- Other categories are forecast using the actual opex incurred in 2012–13.

An adjustment is proposed to actual opex incurred in 2012–13 to ensure its opex forecasts reflect a sustainable level of opex going forward. TransGrid stated it has made a commensurate adjustment to the EBSS to ensure it does not over-recover its costs as a result of this adjustment.⁹⁰

Eight step changes are applied to the base year where TransGrid considers there are clear changes to the cost base that are not reflected in the base year. Three forecast efficiency improvements which will take place during or after the base year have been adjusted out of the base year.⁹¹

TransGrid has forecast a trend in opex based primarily on forecast growth in the network and labour cost increases.⁹²

Capex

TransGrid's actual total capex spend was around 20 per cent less than its total forecast capex over the current regulatory control period. It spent \$2275 million (\$2013–14) compared to its total forecast capex of \$2846 million (\$2013–14). This is an underspend of \$571 million (\$2013–14). TransGrid underspent in every year but is expecting to overspend in the final year of the current regulatory control period, as shown in Figure D.2.

TransGrid's indicative proposed total forecast capex for the 2014–19 period is \$1880 million (\$2013–14). This is \$966 million (\$2013–14), or 34 per cent, lower than its total forecast capex for the 2009–14 regulatory control period. It is \$395 million (\$2013–14), or 17 per cent, lower than TransGrid's actual total capex spend over the 2009–14 regulatory control period. Figure D.2 shows TransGrid's indicative proposed forecast capex in each year of the 2014–19 period.

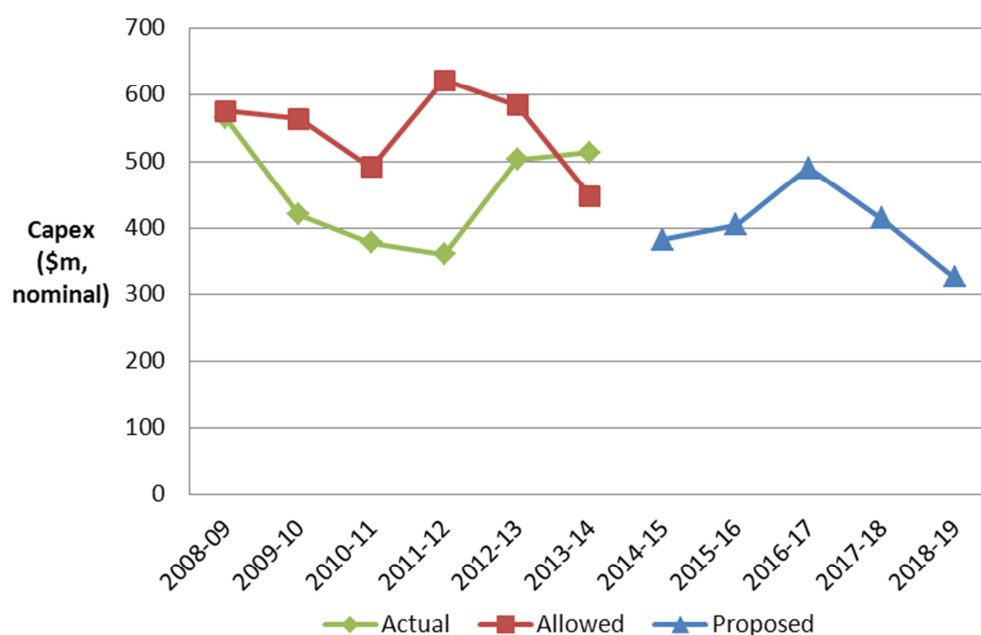
TransGrid submitted that the reduction in forecast capex is driven by lower demand, with TransGrid's augmentation capex for the 2014–19 period significantly lower than the 2009–14 regulatory control period. However, TransGrid's indicative proposed forecast replacement capex is significantly higher as more network assets are reaching the end of their serviceable lives. TransGrid identified two potential contingent projects. The first involves upgrades around the inner Sydney metropolitan area, and the second involves the connection of new generation in southern NSW.

⁹⁰ TransGrid, *Transitional revenue proposal 2014/15*, January 2014, pp. 39–40

⁹¹ TransGrid, *Transitional revenue proposal 2014/15*, January 2014, p. 41.

⁹² TransGrid, *Transitional revenue proposal 2014/15*, January 2014, pp. 42–43

Figure D.2 TransGrid’s capex in the 2009–14 and 2014–19 periods (\$million, nominal)



Source: TransGrid TRP and AER analysis.

Rate of return

TransGrid proposed an indicative WACC range of 8.8–9.5 per cent.⁹³ TransGrid submitted that a multiple model approach is consistent with the rule requirement to have regard to relevant estimation methods, financial models, market data and other evidence when estimating the return on equity.⁹⁴ TransGrid submitted that the foundation model approach set out in our rate of return guideline (guideline) is inconsistent with this rule requirement.⁹⁵

TransGrid proposed to adopt a trailing average portfolio approach (with a 10-year debt term and BBB+ credit rating) to estimate the return on debt as set out in the guideline. However, TransGrid submitted that historical rates would best match its actual debt financing practices (the immediate adoption of a trailing average debt portfolio).⁹⁶

TransGrid adopted a value of 0.25 for imputation credits (gamma) calculated as the product of the payout ratio (0.7) and utilisation rate (0.35). It submitted that this is consistent with the Energy

⁹³ TransGrid, *Transitional revenue proposal 2014/15*, January 2014, p. 54.

⁹⁴ NER, clause 6A.6.2(e)(1). Although it is unclear from TransGrid’s proposal how the return on equity was calculated, it noted in its proposal that in developing WACC estimates for the transitional regulatory control period it relied on publicly available studies on the cost of capital for a benchmark energy network. The point estimate for return on equity as presented in its proposed post-tax revenue model (PTRM) is 10.7%. TransGrid, *Transitional revenue proposal 2014/15*, January 2014, p. 54. TransGrid, *Post-tax revenue model*, January 2014.

⁹⁵ NER, clause 6A.6.2(e)(1). TransGrid, *Transitional revenue proposal 2014/15*, January 2014, pp. 53–54.

⁹⁶ TransGrid, *Transitional revenue proposal 2014/15*, January 2014, p. 49. Although it is unclear from TransGrid’s proposal how the return on debt was calculated, it noted in its proposal that in developing WACC estimates for the transitional regulatory control period it relied on publicly available studies on the cost of capital for a benchmark energy network. The point estimate for the return on debt as presented in the PTRM is 7.7%. TransGrid, *Post-tax revenue model*, January 2014.

Networks Association's (ENA) submission to our draft rate of return guideline.⁹⁷ It also submitted that it was currently considering our approach to determining gamma as set out in the guideline.⁹⁸

RAB

The opening RAB at 1 July 2014 is a key determinant of the allowed revenue for the transitional regulatory control period. It directly influences the return on capital and return of capital building blocks. Table D.2 shows TransGrid's proposed roll forward of the RAB across the current regulatory control period in order to derive the opening RAB.

Table D.2 Derivation of TransGrid's opening RAB as at 1 July 2014 (\$m, nominal)

RAB	2009–10	2010–11	2011–12	2012–13	2013–14
Opening RAB	4218	4581	4930	5184	5618
Net capital expenditure as incurred	420	378	361	503	513
Straight-line depreciation	-179	-182	-184	-199	-223
Inflation adjustment	122	153	78	130	154
Closing RAB	4581	4930	5184	5618	6063
Net adjustments from 2008–09					41
Opening RAB as at 1 July 2014					6104

Source: TransGrid, *Transitional revenue proposal 2014/15*, 31 January 2014, p. 46.

Table D.2 also includes adjustments that relate to 2008–09. When the AER made its transmission determination for the current regulatory control period, final figures for 2008–09 could not be obtained (since the year was not yet complete). Hence, TransGrid's proposal adjusts for the difference between actual and estimated capex for the 2008–09 financial year.⁹⁹

Table D.3 shows TransGrid's proposed roll forward of the regulatory asset base from 1 July 2014 to 30 June 2019. This builds on the proposed capex outlined above.

Table D.3 TransGrid's proposed regulatory asset base from 2014–19 (\$m, nominal)

RAB	2014–15	2015–16	2016–17	2017–18	2018–19
Opening RAB	6104	6395	6696	7071	7387
Net capital expenditure	383	406	491	415	327
Straight-line depreciation	-246	-266	-285	-277	-296
Inflation adjustment ^a	154	161	169	179	187
Closing RAB	6395	6696	7071	7387	7604

Source: TransGrid, *Transitional revenue proposal 2014/15*, 31 January 2014, p. 62.

(a) Based on a forecast inflation rate of 2.53 per cent per annum.

⁹⁷ TransGrid, *Transitional revenue proposal 2014/15*, January 2014, pp. 54–55. ENA, *Response to the draft rate of return guideline of the Australian Energy Regulator*, October 2013.

⁹⁸ TransGrid, *Transitional revenue proposal 2014/15*, January 2014, pp. 54–55.

⁹⁹ This includes an adjustment for the time value of money arising from the delay in making this adjustment.

Although the roll forward of the RAB across this period has little direct impact on the revenue for the transitional regulatory control period, it has a larger impact on subsequent years. Hence, it is relevant to our assessment of the likely price variations that will occur across the entire 2014–19 period.

D.2 Transend

MAR

Table D.4 shows Transend’s proposed total revenue for each year of the 2014–19 period, including the building blocks and Transend’s proposed smoothing.¹⁰⁰

Table D.4 Transend’s proposed building blocks and total revenue (\$m, nominal)

Building blocks	2013–14	2014–15	2015–16	2016–17	2017–18	2018–19
Return on capital		119	122	127	131	134
Return of capital		22	29	34	35	35
Operating expenditure		48	48	50	51	52
Efficiency carryover		12	10	6	6	0
Net tax allowance		9	10	11	11	12
Total (unsmoothed)		210	220	227	233	232
Total (smoothed)	221^a	215	220	224	229	233
Change ^b (%)		-2.7%	2.0%	2.0%	2.0%	2.0%

Source: Transend, *Transitional revenue proposal, Regulatory control period 1 July 2014 – 30 June 2015*, 31 January 2014, pp. 7–8; AER calculations.

Notes:

- a This figures is the revenue Transend estimates it will recover in 2013-14 (not the allowed revenue from the AER’s 2009 determination), as discussed further below.
- b This row shows the year-on-year change in total nominal revenues. It should not be interpreted as the X-factor change from year to year.

In its transitional revenue proposal, Transend stated that the AER allowance for 2013–14 revenue was \$248 million.¹⁰¹ In 2012, Transend indicated that it would not seek to fully recover the MAR in 2013–14.¹⁰² As a result, Transend expects that actual revenues for 2013–14 will be \$221 million, and this is the amount shown in Table D.4.¹⁰³ Transend has indicated that it will not seek to recoup the \$26 million under-recovery across the 2014–19 period.

The key determinants of the building blocks from Transend’s proposal (opex, capex, rate of return and RAB) are separately presented below. Transend’s proposal also included detail on:

- Regulatory depreciation—Transend proposed to use straight-line depreciation as calculated in the PTRM, and put forward a schedule of asset lives.¹⁰⁴ Its depreciation forecasts (including the net effect of indexation) are included in the RAB roll forward tables presented below.

¹⁰⁰ To derive these nominal figures, Transend assumes 2.5 per cent inflation across the period.

¹⁰¹ Transend, *Transitional revenue proposal, Regulatory control period 1 July 2014–30 June 2015*, January 2014, pp. 7–8.

¹⁰² Transend, *Transitional revenue proposal, Regulatory control period 1 July 2014–30 June 2015*, January 2014, p. 6, 8.

¹⁰³ This is because the \$221 million figure is the appropriate starting point for the price variation assessment we have undertaken.

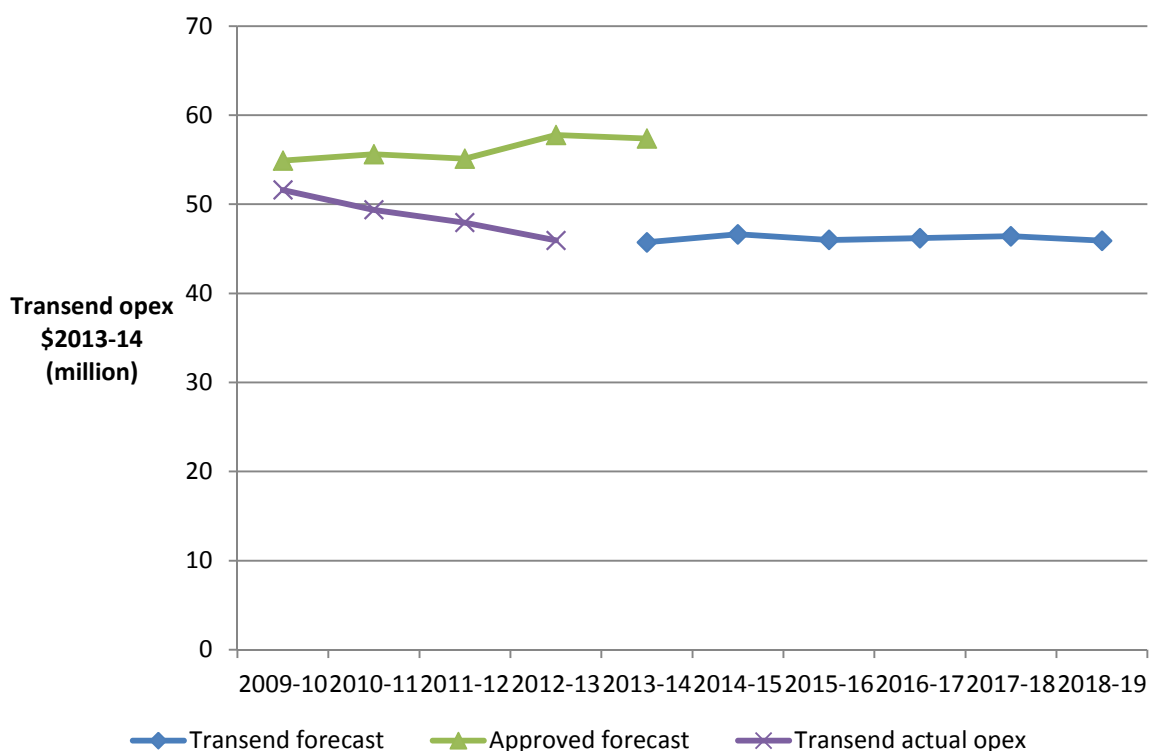
¹⁰⁴ Transend, *Transitional revenue proposal, Regulatory control period 1 July 2014–30 June 2015*, January 2014, pp. 67–68.

- Cost of corporate income tax—Transend submitted taxation calculations using the PTRM, which involves calculating the indicative tax payable and then reducing its tax allowance with respect to the value of imputation credits.¹⁰⁵ Transend’s proposed gamma figure is discussed below in the rate of return section.
- Efficiency carryovers—Transend proposed a positive carryover allowance reflecting past efficiency gains associated with opex (under the EBSS) over the current regulatory control period.¹⁰⁶

Opex

Transend has forecast average annual opex of \$46.2 million (\$2013–14) in the 2014–19 period. This is a 5.2 per cent decrease in average annual opex from the first four years of the 2009–14 regulatory control period. Figure D.3 compares Transend’s opex in the current regulatory control period to its approved allowance and its forecast opex in the transitional and subsequent regulatory control periods.

Figure D.3 Transend’s opex in the 2009-14 and 2014-19 periods (\$ million, 2013-14)



Transend has forecast its opex using the following approach.¹⁰⁷

Transend’s controllable opex forecast has been developed using a base-step-trend approach. Under this approach, non-recurrent costs, such as cyclical revenue reset costs, have been deducted from the 2012–13 expenditure to determine an efficient base year starting point.

¹⁰⁵ Transend, *Transitional revenue proposal, Regulatory control period 1 July 2014–30 June 2015*, January 2014, p. 64 (tax cashflow calculations are included in the PTRM).

¹⁰⁶ Transend, *Transitional revenue proposal, Regulatory control period 1 July 2014–30 June 2015*, January 2014, p. 91.

¹⁰⁷ Transend, *Transitional revenue proposal, Regulatory control period 1 July 2014–30 June 2015*, January 2014, p. 50.

This base year expenditure has been adjusted in future years by step changes.

Forecast changes in costs have been applied based on forecast labour cost movements and cost increases due to network growth.

It has applied annual productivity factors in anticipation of its ongoing cost saving initiatives and efficiency improvements, including those arising from the merger of Transend and Aurora Energy's distribution business) to produce its controllable opex forecast.

Other opex items (including network support, insurance and self-insurance premiums and debt raising costs) have been forecast utilising a zero-based (or bottom up) methodology.

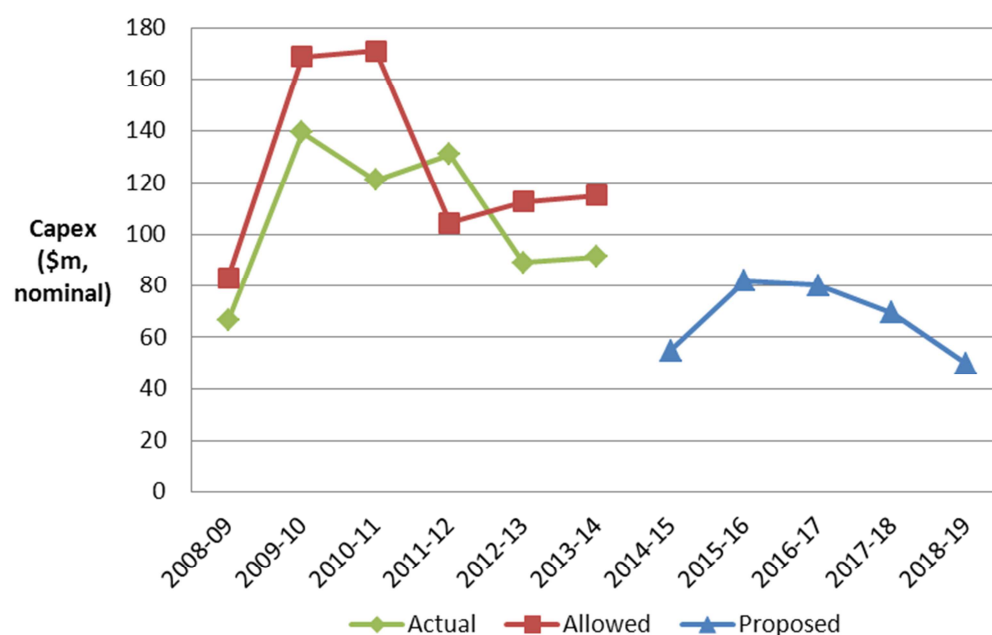
Capex

Transend's actual total capex spend was around 15 per cent less than its total forecast capex over the current regulatory control period. It spent \$604 million (\$2013–14) compared to its total forecast capex of \$709 million (\$2013–14). This is an underspend of \$105 million (\$2013–14). Transend underspent in every year except 2011–12, as shown in Figure D.4.

Transend's indicative proposed total forecast capex for the 2014–19 period is \$313 million (\$2013–14). This is \$396 million (\$2013–14), or 56 per cent, lower than its total forecast capex for the current regulatory control period. It is \$291 million (\$2013–14), or 48 per cent, lower than Transend's actual total capex spend over the current regulatory control period. Figure D.4 shows Transend's indicative proposed forecast capex in each year of the 2014–19 period.

Transend deferred several augmentation projects in the current regulatory control period because of lower than forecast demand growth. Lower forecast demand and uncertainty of future peak demand growth mean Transend's proposed augmentation capex for the 2014–19 period is significantly lower than the current regulatory control period. Transend indicated it overspent on replacement capex in the current regulatory control period to clear a backlog of renewal projects. Transend's indicative proposed forecast replacement capex in the 2014–19 period is lower, which it stated reflects more typical levels.

Figure D.4 Transend's capex in the 2009–14 and 2014–19 periods (\$million, nominal)



Source: Transend TRP and AER analysis.

Rate of return

Transend proposed an indicative WACC range of 8.2–9.3 per cent.¹⁰⁸ This indicative WACC range reflects the parameters shown in Table D.5.

Transend submitted that it supported a limited application of the guideline foundation model approach in estimating the return on equity for the 2014–15 regulatory control period.¹⁰⁹ It submitted parameter values and/or ranges for the Sharpe-Lintner capital asset pricing model. These were based on consultant reports previously submitted to us in June 2013 by SFG Consulting (SFG), NERA Economic Consulting (NERA) and the Competition Economists Group (CEG).¹¹⁰

Transend submitted an estimate for the return on debt that is consistent with the guideline approach. It applied the prevailing yield for 10-year BBB corporate bonds as at 31 October 2013 using published yield curve data from the Reserve Bank of Australia.¹¹¹

Transend adopted a value of 0.25 for imputation credits (gamma) calculated as the product of the payout ratio (0.7) and utilisation rate (0.35).¹¹² It submitted that this value reflects the approach taken by the Australian Competition Tribunal and warrants considerable weight when determining a value for gamma.¹¹³

¹⁰⁸ Transend, *Transitional revenue proposal regulatory control period 1 July 2014–30 June 2015*, January 2014, p. 64.

¹⁰⁹ Transend, *Transitional revenue proposal regulatory control period 1 July 2014–30 June 2015*, January 2014, pp. 95–98.

¹¹⁰ SFG, *Regression-based estimates of risk parameters for the benchmark firm*, June 2013. NERA, *Estimates of the zero beta premium*, June 2013. CEG, *Estimating the return on the market*, June 2013.

¹¹¹ Transend, *Transitional revenue proposal regulatory control period 1 July 2014–30 June 2015*, January 2014, pp. 98–99.

¹¹² Transend, *Transitional revenue proposal regulatory control period 1 July 2014–30 June 2015*, January 2014, pp. 99–100.

¹¹³ Australian Competition Tribunal, *Application by Energex Limited (gamma) (No 5) [2011] ACompT9*, May 2011.

Table D.5 Transend's proposed WACC parameters

	Transend
Risk free rate (%)	4.1
Market risk premium (%)	6.5–8.1 (6.5)
Equity beta	0.8–1.0 (0.9)
Return on equity (%)	9.4–12.2 (10.0)
Debt risk premium (%)	3.3
Return on debt (%)	7.4
Gamma	0.25
Nominal vanilla WACC (%)	8.2–9.3 (8.4)

Source: Transend, *Transitional revenue proposal, Regulatory control period 1 July 2014–30 June 2015*, January 2014. Transend, *Post-tax revenue model*, January 2014.

Note: Where the TNSP submitted a range for a parameter, the table includes the range and the final proposed value (in parentheses).

RAB

The opening RAB at 1 July 2014 is a key determinant of the allowed revenue for the transitional regulatory control period. It directly influences the return on capital and return of capital building blocks. Table D.6 shows Transend's proposed roll forward of the RAB across the current regulatory control period in order to derive the opening RAB.

Table D.6 Derivation of Transend's opening RAB as at 1 July 2014 (\$m, nominal)

RAB	2009–10	2010–11	2011–12	2012–13	2013–14
Opening RAB	951	1,069	1,171	1,271	1,336
Net capital expenditure as incurred	140	121	131	89	91
Inflation on opening RAB	28	36	19	32	33
Straight-line depreciation	-50	-54	-50	-56	-62
Closing RAB	1069	1171	1271	1336	1398
Net adjustments from 2008–09					19
Opening RAB as at 1 July 2014					1417

Source: Transend, *Transitional revenue proposal regulatory control period 1 July 2014–30 June 2015*, January 2014, p. 60.

Table D.6 also includes adjustments that relate to 2008–09. When the AER made its transmission determination for the current regulatory control period, final figures for 2008–09 could not be obtained (since the year was not yet complete). Hence, Transend adjusts for the difference between actual and estimated capex, and the difference between actual and estimated assets under construction, from the 2008–09 financial year.¹¹⁴

¹¹⁴ This includes an adjustment for the time value of money arising from the delay in making this adjustment. Transend, *Transitional revenue proposal regulatory control period 1 July 2014–30 June 2015*, January 2014, pp. 59–60.

Table D.7 shows Transend’s proposed roll forward of the RAB from 1 July 2014 to 30 June 2019. This builds on the proposed capex outlined above.

Table D.7 Transend’s proposed regulatory asset base from 2014–19 (\$m, nominal)

RAB	2014–15	2015–16	2016–17	2017–18	2018–19
Opening RAB	1,417	1450	1502	1549	1584
Net capex as incurred	55	82	80	70	50
Inflation on opening RAB ^a	35	36	38	39	40
Straight-line depreciation	-57	-66	-71	-73	-75
Closing RAB	1450	1502	1549	1584	1599

Source: Transend, *Transitional revenue proposal regulatory control period 1 July 2014–30 June 2015*, January 2014, p. 60.
(a) Based on forecast inflation rate of 2.50 per cent per annum.