TasNetworks Revenue Building Blocks – Financial Modelling Consultation Paper

August 2017

Introduction

Established on 1 July 2014, TasNetworks is continuing its journey to keep prices as low as possible, while delivering safe, reliable and resilient services.

We are delivering on these goals. Our recent transmission and distribution proposals put downward pressure on prices, seeking to maintain service standards with prudent and efficient operating and capital programs and a lower cost of capital to reflect underlying market conditions. The regulator accepted all material aspects of our transmission (2014-2019) and distribution (2017-2019) proposals.

We are now preparing plans for the first integrated transmission and distribution review covering the period 1 July 2019 to 30 June 2024. Our 2019-2024 Revenue Proposal will set out our expenditure plans, service performance targets and our proposed revenues that will directly impact our future prices.

Many customers have provided us feedback to keep downward pressure on revenue; in turn keeping prices as low as possible. For most residential customers there is a desire to lower prices over improved reliability.

This Consultation Paper is focussed on financial modelling aspects of our revenue forecast. It is an important part of our stakeholder engagement process as we prepare our 2019-2024 Revenue Proposal. Customers and customer representative groups are interested to understand how our revenue is built up, and the decisions we make that affect our revenue requirement for each regulatory period. We recognise that the information about how we earn revenue is complex and this paper is written for an informed audience. We are continuing to explore communication methods to help all of our customers understand our plans and provide us feedback.

In this paper we outline our approach to forecast:

- the weighted average cost of capital (**WACC**);
- depreciation for our assets;
- inflation; and
- Imputation credit value (gamma).

Although our transmission and distribution revenues are separately determined, the methodology for doing so is broadly the same. The concepts and issues discussed in this paper are therefore the same for both transmission and distribution. We intend to adopt consistent approaches to dealing with these issues from both a transmission and distribution perspective.

We have also released a *Draft* Directions and Priorities Consultation Paper which outlines our preliminary views on the activities and expenditure we propose to undertake during the 2019-24 regulatory period as well as an indication of the costs to run our business and the likely impacts on network charges. Our *Draft* Directions and Priorities paper is available here[1].

We encourage you to comment on the matters outlined in this paper or any matter of interest or concern to you. Your feedback will assist us in finalising our plans for the 2019-24

[1] https://www.tasnetworks.com.au/TasNetworks/media/images/customer-engagement/TasNetworks-Directions-and-Priorities-Consultation-Paper-(3).pdf

regulatory period. In order for us to have sufficient time to consider your feedback we must receive it by 5pm Friday 1 September 2017. We look forward to receiving your input.

Background: Our revenue requirements

The Australian Energy Regulator (**AER**) determines the amount of transmission and distribution revenue we can earn each year from our core regulated network services, using a 'building block' methodology. The revenue 'building blocks' include return on capital, depreciation allowance, operating expenditure, corporate tax allowance[2] and efficiency payments. This allowed revenue is adjusted from year to year, to reflect the outcome of incentive schemes and any over- or under-recoveries from previous years. Our revenue is then used to determine prices on an annual basis in line with our Transmission Pricing Methodology[3] and our Distribution Tariff Structure Statement[4], both of which are approved by the AER as part of making a revenue determination.

Revenue Determination

Our revenue allowance is set by the AER following consideration of TasNetworks Revenue Proposal for the determination period.

The AER considers our forecast costs and assesses whether they are efficient. The AER determines revenue based on a defined 'building block' methodology.

Revenue is set separately for our transmission and distribution operations.

Prices are set to enable TasNetworks to recover its allowed revenue

Annual Pricing

TasNetworks develops a pricing methodology (for transmission) and a Tariff Structure Statement (for distribution) that are submitted at the same time as our Revenue Proposal and approved by the AER.

We determine prices each year in accordance with our approved transmission pricing methodology and based on the approved structures in our distribution tariff structure statement.

Our revenue must be sustainable to enable us to continue to deliver a safe and reliable network and manage our risks. The allowance provides for corporate tax equivalents and a reasonable rate of return to our owners, the Tasmanian Government. These are set consistently for all networks regulated by the AER, based on an efficient business. The return on our investment is a large component of our total revenue because our business is very capital intensive, with a large asset base to be financed over time.

Most of our revenue allowance is required to fund the long-life assets that provide services to our customers. This includes assets built each year, over the last 60 plus years. The majority of the revenues (in particular depreciation and return on capital) are to fund assets already constructed in previous periods. This is illustrated in Figure 1.

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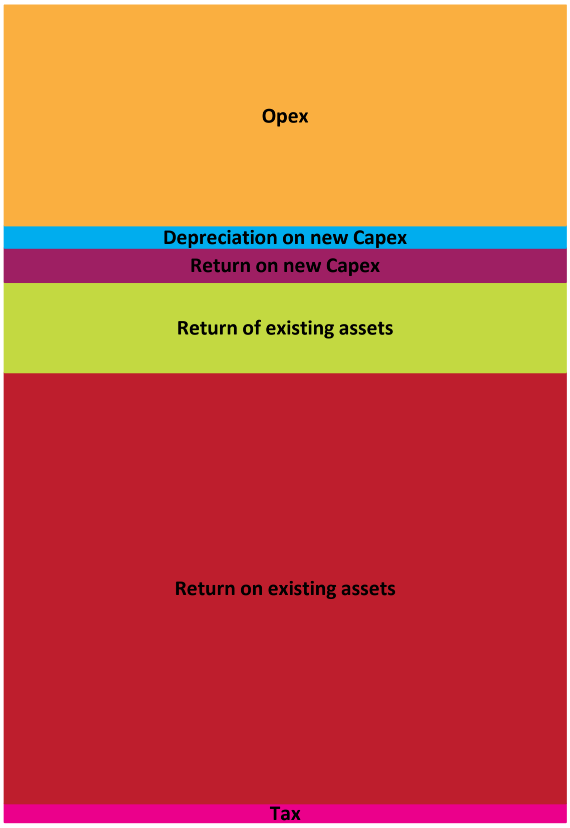
[2] The value of imputation credits (gamma) is accounted for, separately from WACC, in the calculation of tax liabilities. TasNetworks' positon is to adopt gamma as approved by the AER

[3] https://www.tasnetworks.com.au/TasNetworks/media/pdf/our-network/Approved-Pricing-Methodology-1-July-2015-to-30-June-2019.pdf

[4] https://www.tasnetworks.com.au/TasNetworks/WebParts/TasNetworks/EWP/DownloadDD17.ashx?d=11274&m=v

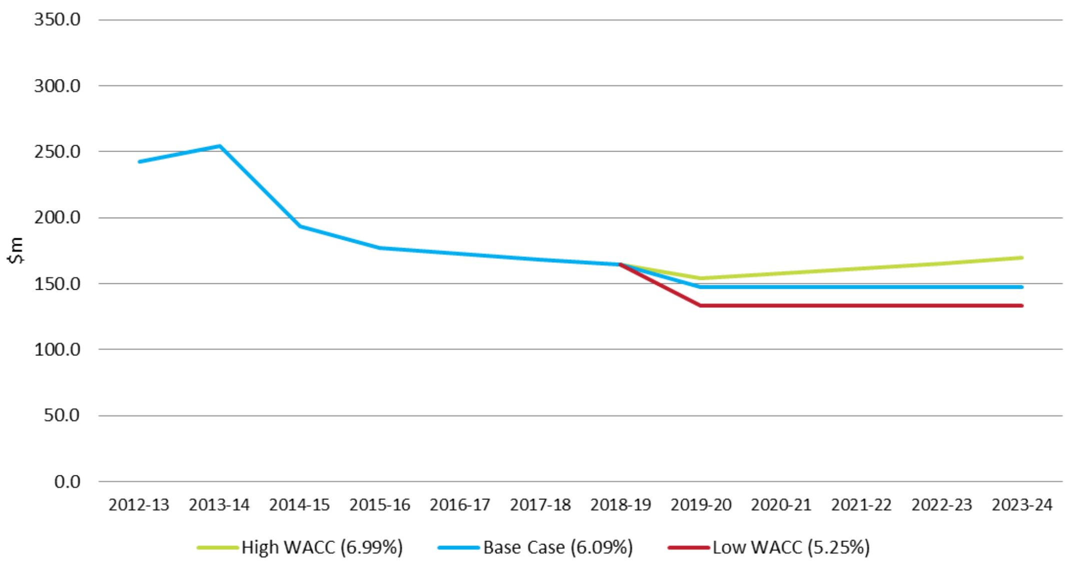
Figure 1: Revenue building blocks[5]



Given our large asset base, the Weighted Average Cost of Capital (**WACC**) has a big impact on our revenue requirements over time. In simple terms, WACC refers to the returns we get for our investments and compensates us for the cost of what we borrow.

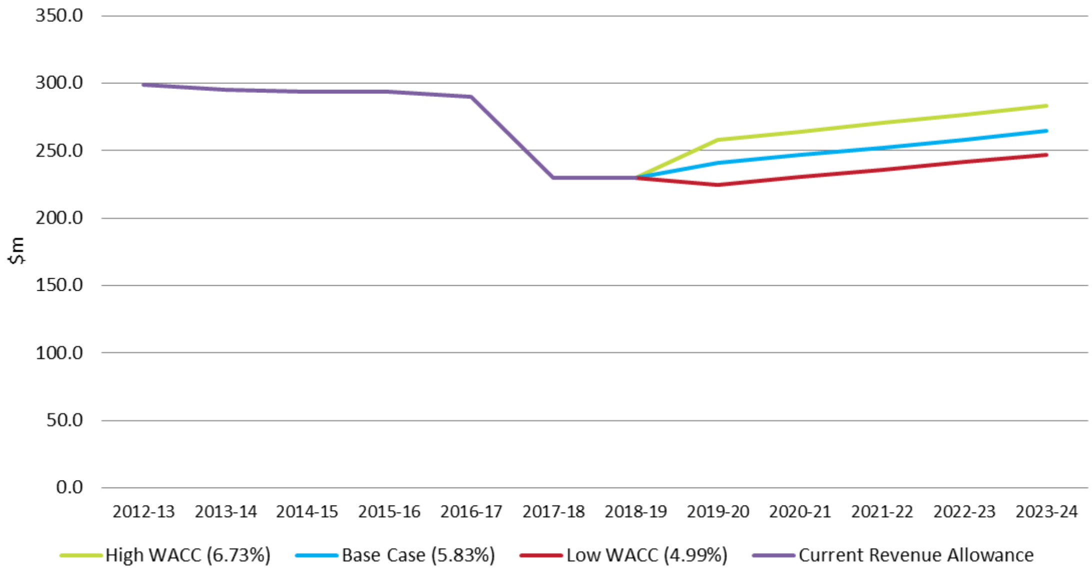
The figures below show our current revenue allowance for transmission and distribution alongside our proposed revenue for the forthcoming regulatory period, using a range of potential WACC or Rate of Return scenarios.

Figure 2: Transmission revenue scenarios ($m 2016-17 real dollars)



[5] The Figure is reflective of the proportion by category for our forecast transmission revenues for the 2019-24 period, the proportions for distribution are similar.

Figure 3: Distribution revenue scenarios ($m 2016-17 real dollars)



Our proposed Rate of Return approach

Consistent with our previous transmission (2014-2019) and distribution (2017-2019) regulatory decisions, we propose to adopt the AER's approach to setting the rate of return. This approach will assist us to deliver on the promise we have made to our customers to deliver our services for the lowest sustainable cost.

The WACC is calculated assuming a benchmark efficient firm rather than actual business incurred costs; this ensures that Network Service Providers (**NSPs**) are rewarded for efficiency in their management of capital. Below is a simplified version of the WACC formula using the relevant components discussed in this consultation paper.

$$WACC = (Risk\ Free\ Rate + Beta) \times Equity\ Gearing + Debt\ Rate\ \times Debt\ Gearing$$

Risk Free Rate

The Risk Free Rate is calculated by using a 20 day average of a specified calculation of two Commonwealth Government Securities with a maturity either side of ten years in advance of the averaging date. This rate, once calculated at the commencement of the regulatory period, is maintained throughout the period. NSPs are able to nominate the dates for the average, however the AER retains the ability to independently determine the dates. In this upcoming determination TasNetworks will be proposing the averaging dates, which will not be disclosed publicly until after the averaging period has ended due to the market sensitive nature of this information. The data used to calculate this rate is freely available from the RBA[6] with the applicable workbooks containing the averaging formula available in recent AER determinations.

Beta

Beta is a measure of volatility. The value is generated by analysing a company's sensitivity to movements in the general market. For its use in revenue determinations the Beta is set by the AER taking into account the AER's view of the benchmark risk in the Australian market for NSPs. The AER has set the current Beta value at 0.7 which indicates that it considers energy companies are less risky than the general market which feeds into a lower expected return on

[6] RBA F16 Indicative Mid Rates Of Selected Commonwealth Government Securities

capital than the general market. We propose to adopt the AER's Beta estimate for our 2019-2024 Revenue Proposal.

Debt Rate

The debt rate is calculated using data freely available from the RBA[7] as well as the proprietary Bloomberg BVAL 10 dataset. To calculate the rate, network service providers nominate an averaging period of between ten days up to 12 months and the specific dates on which that calculation will occur. The debt rate is updated on a yearly basis to generate a ten year rolling average which smooths out the variability in this rate. Due to different regulatory periods in the past our transmission and distribution rolling averages have different start dates[8]. This will result in a different debt rate for transmission and distribution even though we will nominate a consistent averaging period for the regulatory period.

Gearing

Gearing relates to the proportional level of debt and equity that a company holds. The AER has determined a benchmark level for network companies is 40 per cent equity and 60 per cent debt, used in the calculation of WACC regardless of a company's actual gearing levels. TasNetworks' positon is to adopt the AER position in relation to the gearing ratios used.

TasNetworks Approach to WACC

TasNetworks' overall position is to follow the AER's Better Regulation Rate of Return Guideline[9] for calculating WACC. The inputs used to calculate WACC are volatile, reflecting changes in the financial markets. Therefore the WACC values used by TasNetworks and the AER prior to our final determination will reflect the latest available data at the time but may not be reflective of the final outcome. For this reason, TasNetworks will continue to forecast revenue outcomes using a range of WACC scenarios, and will use the 'base' or medium forecast for pricing forecast purposes.

Imputation credit value (gamma).

The value of imputation credits (gamma) is an important input to the calculation of the corporate income tax allowance component of the revenue building blocks. The gamma value has a direct bearing on the overall returns that are delivered to our owners. Specifically, if the value ascribed to gamma is higher than the value that equity-holders place on imputation credits, the overall return to owners will be less than what is required to promote efficient investment in, and efficient operation and use of, electricity distribution services for the long term interests of consumers.

For the purpose of the 2019-24 Regulatory Proposal, TasNetworks' positon is to adopt gamma as approved by the AER.

Rate of Return Guideline Review

The AER initiated a review of the Rate of Return guideline on 31 July 2017 by publishing a consultation paper[10] on the process for reviewing the Rate of Return guideline. Interested

[7] RBA F3 Capital Market Yields and Spreads - Non-Government Instruments
[8] Transmission started from at the commencement of the 2014-19 regulatory period and distribution at the start of the 2017-19 regulatory period.
[9] https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/rate-of-return-guideline-2013
[10] https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/review-of-rate-of-return-guideline

parties are invited to make submissions on our consultation paper by close of business on Monday 28 August 2017.

It is important to note that the outcomes of this guideline review is not currently expected to apply[11] to TasNetworks for the 2019-2024 period, but the revised guideline will apply to TasNetworks from 2025. Stakeholder feedback to the guideline review process is therefore important to influence medium to long term outcomes in Tasmania.

Depreciation

The National Electricity Rules (**the Rules**) provide guidance, but do not prescribe a method for calculating depreciation. However, the AER has set out its preferred methodology in the post-tax revenue model (**PTRM**).

Under the methodology, straight-line depreciation is applied using standard asset lives for each regulatory asset class. Straight-line depreciation is a well-established method used to reflect the decline in the service potential of an asset over its economic life.

TasNetworks has depreciated new assets on a straight line basis according to standard lives for each asset class. We have depreciated our existing assets over their remaining asset lives.

In its April 2017 distribution determination, the AER accepted our proposal to use the year-by-year tracking method for depreciating existing assets. We plan to maintain the application of this method in our 2019-2024 Revenue Proposal for both our transmission and distribution assets. The year-by-year tracking method captures the timing of new additions for each asset class in the relevant year, which provides more granular and accurate information on the lives and depreciation associated with those assets.

Each asset class will now have an expanding list of sub-classes to reflect every regulatory year in which capital expenditure on those assets was incurred. The year-by-year tracking method is more disaggregated, compared with the other approaches, and involves multiple depreciation calculations within each asset class, separately tracking capex by the regulatory year it was incurred. However, this extra data better tracks remaining asset values and associated depreciation.

For the purposes of the 2019-2024 Revenue Proposal we intend to maintain consistency in transmission and distribution asset lives.

Inflation

Inflation is used within the Roll Forward Model and the Post Tax Revenue Model provided by the AER to index assets and revenue. The AER has settled on the Australian CPI movement as being the specified method of quantifying the actual inflation rate, however revenue proposals are based on forecast (expected) inflation. Recently, the method for estimating expected inflation has been the subject of debate in regulatory determinations. The AER is currently consulting with the industry and stakeholders in relation to the appropriate method of calculating inflation. A detailed discussion on the use of inflation can be found in the AER Regulatory treatment of inflation discussion paper[12].

Inflation is currently forecast by the AER for ten years by using RBA CPI forecast for two years and then for the remaining years it is set at the midpoint of the RBA's current inflation target

[11] TasNetworks has proposed a Rule Change to be excluded from the new Guideline for the upcoming 2019-24 regulatory control period.

[12] AER 2017 Regulatory Treatment of Inflation Discussion Paper <https://www.aer.gov.au/system/files/AER%20inflation%20review%202017%20-%20discussion%20paper%20-%2018%20April%202017.pdf>

of between two and three per cent. TasNetworks' position is to use the AER's preferred method. Therefore, if the AER changes its preferred method as part of the current review then TasNetworks will adopt that methodology.

Next Steps - Have your say

TasNetworks is committed to providing the best outcomes for our customers and through adopting the preferred AER method of calculation of a range of financial parameters for the upcoming regulatory period. This gives customers certainty on the methods used to forecast revenue and that the proposals submitted provide a realistic reflection of the likely outcome during the determination period.

We are interested in your feedback on our planned approach in relation our approach to forecast:

- the weighted average cost of capital (WACC);
- depreciation for our assets;
- Inflation; and
- value of imputation credits (gamma).

Your input will help to ensure that we have a strong foundation for the detailed proposals we must submit for the 2019-2024 regulatory period.

There is no standard format for submissions, but it will help us to understand your views if you indicate clearly which parts of the Consultation Paper you are commenting on. You may raise any matter in your submission that is of interest or concern to you.

You can:

- Email your submission to: revenue.reset@tasnetworks.com.au
- Go on line at http://www.tasnetworks.com.au/customer-engagement
- Post your submission to:
Leader Regulation
Po Box 606
Moonah Tas 7009

Unless your submission requests otherwise, we will publish all the submissions we receive on our website. We think this will promote debate and better awareness of the issues of importance to different stakeholders. We may also include excerpts from submissions in our regulatory proposal which will be lodged with the AER in January 2018. In order for us to have sufficient time to consider your submission we must receive it by 5pm Friday 1 September 2017.

We encourage you to comment on any matter of interest or concern to you as we prepare our plans and proposals for the next regulatory period. We look forward to receiving your input.

Related Documents

We have also released a Draft Directions and Priorities Consultation Paper which outlines our preliminary views on the activities and expenditure we propose to undertake during the 2019-2024 regulatory period. The paper also includes an indication of the costs to run our business and the likely impacts on network charges. Our Draft Directions and Priorities paper is available here. **We are seeking submissions on our Draft Directions and Priorities by 5pm Friday 8 September 2017.**