

# Rate of return

Our allowed rate of return is commensurate with the efficient financing cost of a benchmark efficient entity providing regulated network services. This is estimated as a weighted average of the return on debt and equity. These are estimated relative to market data so that investors are compensated for the risks of providing capital to regulated network service providers.

## The allowed rate of return

The allowed rate of return is the forecast of the cost of funds a network business requires to attract investment in the network.

We set the rate of return based on a benchmark, rather than the actual costs of individual businesses. Hence, network businesses have incentives to finance their business as efficiently as possible. We define the benchmark efficient business as one who only provides regulated electricity or gas network services, operating within Australia. This applies to both electricity and gas as the risks across both industries are sufficiently similar such that a single benchmark is appropriate.

We estimate the rate of return by combining the returns of the two sources of funds for investments—equity and debt. The return on equity is the return shareholders of the business will require for them to continue to invest.

The return on debt is the interest rate the network business pays when it borrows money to invest. We consider that efficient network businesses would fund their investments by borrowing 60 per cent of the required funds, while raising the remaining 40 per cent from equity.

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

Our aim is to set a rate of return that delivers sufficient but not excessive returns to support investment in safe and reliable energy networks.

## Our approach

Our approach includes a process that captures a broad range of material from all stakeholders. We set out this approach in our rate of return guideline (the Guideline) published in December 2103. The Guideline was developed through extensive consultation and included effective and inclusive consumer engagement throughout 2013.

In making these draft decisions we have reviewed a vast amount of material put before us. This includes reports from experts engaged by the NSPs and us, and submissions from users, consumer groups and the Consumer Challenge Panel. Overall, our approach is consistent with what we set out in the Guideline. Further details of our Guideline approach are available at <http://www.aer.gov.au/node/18859>

Our approach allows us to determine a rate of return that is commensurate with efficient costs, reflects market conditions and is in the long term interests of consumers.

## Return on equity

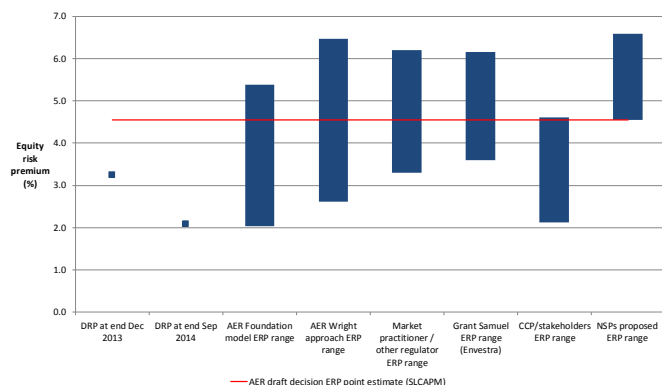
Our return on equity estimate is determined by applying an iterative six step process. We refer to this as the foundation model approach. At different stages of this process we capture information relevant to making an estimate based on the merits of each piece of information. We use a range of models, methods, and information to inform our return on equity estimate.

Based on our review of the various equity models, the Sharpe Lintner Capital Asset Pricing model (SLCAPM) stands out as the superior model for our purpose. We therefore, adopt it as our foundation model. We use some of the other models to inform the input parameter point estimates of the SLCAPM.

Our point estimates for the MRP and equity beta are derived after considering a range of evidence. We adopted a MRP of 6.5 per cent and equity beta of 0.7 resulting in an equity risk premium (the risk premium over the risk free rate) of 4.55 per cent. We compared this equity risk premium with a range

of other information. The figure below shows that our estimate sits within the range of other information available to estimate the return on equity.

**Other information and the AER allowed ERP**



The risk free rate we use is based on the 10 year government bond rate (an average of the observed rate over a 20 day period) close to the next regulatory period. For this draft decision we adopt 3.55 per cent (to be updated prior to our final decision). Our SLCAPM point estimate for this draft decision is 8.1 per cent.

Having evaluated our SLCAPM point estimate against a range of other information, we are satisfied that an 8.1 per cent return on equity estimate is a reasonable estimate of efficient equity financing costs.

Whilst TasNetworks and Directlink applied the Guideline to estimate its proposed return on equity, all other service providers to whom this draft decision applies proposed to depart from the Guideline.

Our return on equity estimate for this draft decision is 8.1 per cent.

**Return on debt**

Our return on debt estimate is based on a transition to the trailing average portfolio approach. The trailing average approach reflects the return on debt that a network business would face if it raised debt annually in equal parcels. Previously, we applied a different approach which was referred to as the on-the-day approach. Our return on debt approach incorporates a transition to the new approach.

Our draft decision is also to update the return on debt annually. Therefore, our estimate in this decision is for the first year of the regulatory period. Due to this, our rate of return will also be updated annually.

We commence the trailing average with an initial estimation of the return on debt that is then progressively updated over the regulatory period. In practice, this means that for new debt that is issued (10 per cent each year) we apply the trailing average immediately. For existing debt issued before the commencement of the trailing average approach, we will continue to apply the on-the-day approach. Consequently, at the end of 10 years the total debt portfolio will have been updated and incorporated into the trailing average.

Our return on debt estimate is developed on the basis that a benchmark efficient entity issues debt with a 10 year term and has a BBB+ credit rating. To estimate the yield on this

debt, we use an independent third party data service provider. We reviewed the data series provided by the Reserve Bank of Australia and Bloomberg and, as neither data series is clearly superior to the other, we decided to adopt an average of the two data series.

Our estimation procedure allows the service provider to propose a period between 10 days and 12 months before the start of each regulatory year, over which the observed rates are averaged to estimate the return on debt. This results in each service provider proposing an averaging period consistent with its debt practices and therefore, our return on debt estimate is different for different service providers.

Our approach and estimation procedures are consistent with the Guideline. The departures from the Guideline approach proposed by the network businesses to whom this draft decision applies is mainly centred on how we commence the trailing average and the credit rating of a benchmark efficient entity. TasNetworks and JGN agree with the approach we use to commence the trailing average. Ausgrid, Endeavour Energy, Essential Energy, ActewAGL, TransGrid and Directlink proposed an immediate adoption of the trailing average approach with no transitional arrangements.

Our return on debt estimate for the first year of each service provider's regulatory period in this draft decision is:

- 6.67 per cent for TransGrid
- 6.51 per cent for Ausgrid, Endeavour Energy and Essential Energy
- 6.07 per cent for ActewAGL and TasNetworks, and
- 5.93 per cent for JGN and Directlink

These returns on debt numbers will be updated annually during the regulatory period to partially reflect prevailing interest rates.

**Imputation credits**

Under the Australian imputation tax system, investors can receive an imputation credit for income tax paid at the company level. For eligible investors, this credit offsets their Australian income tax liabilities.

We subtract from a service provider's corporate tax forecast the value of imputation credits.

In this draft decision, although we have broadly maintained the approach in the guideline, we have re-examined the relevant evidence and estimates. This re-examination, and new evidence and advice considered since the guideline, led us to depart from the value in the Guideline. Accordingly, we adopt a 0.4 value, rather than the 0.5 value we proposed in the Guideline.

Our value of imputation credits for this draft decision is 0.4 (40 per cent).