

Better Regulation: Rate of return guideline

Our rate of return guideline sets out how we determine the return that electricity and gas network businesses can earn on their investments. Applied consistently over time, the guideline provides regulatory stability and increased certainty through greater transparency of the key components of the rate of return and how these are assessed. Our approach will balance the interests of stakeholders by providing the opportunity for the recovery of efficient financing costs and more stable returns for the businesses, and more stable price movements for consumers.

What is the rate of return?

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

To estimate this cost, we consider the cost of the two sources of funds for investments—equity and debt. The return on equity is the return shareholders of the business will require for them to continue to invest.

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

When a network business spends money on an asset, for example a new substation, the value of that substation is added to its regulatory asset base. The business' regulatory asset base is the total value of all the capital investments it makes to supply consumers with electricity or gas. The value of the regulatory asset base is multiplied by the allowed rate of return to determine the total return on capital the network business can charge energy consumers.

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. The return on investment can make up approximately 50 per cent of revenue needs for network businesses.

What's in the rate of return guideline?

The guideline sets out the approach we use to estimate the returns on equity and debt for a benchmark efficient business. This approach supports the rate of return objective in the national electricity and gas rules. This is for the overall rate of return to correspond to the efficient financing costs of a benchmark efficient business.

By setting a rate of return based on a benchmark, rather than the actual costs of individual businesses, network businesses have incentives to finance their business as efficiently as possible.

We define the benchmark efficient business as one who only provides regulated electricity or gas network services, operating within Australia. This applies to both electricity and gas as the risks across both industries are sufficiently similar such that a single benchmark is appropriate.

Our approach allows us to determine rates of return over time that reflect market conditions and in the long term interests of consumers.

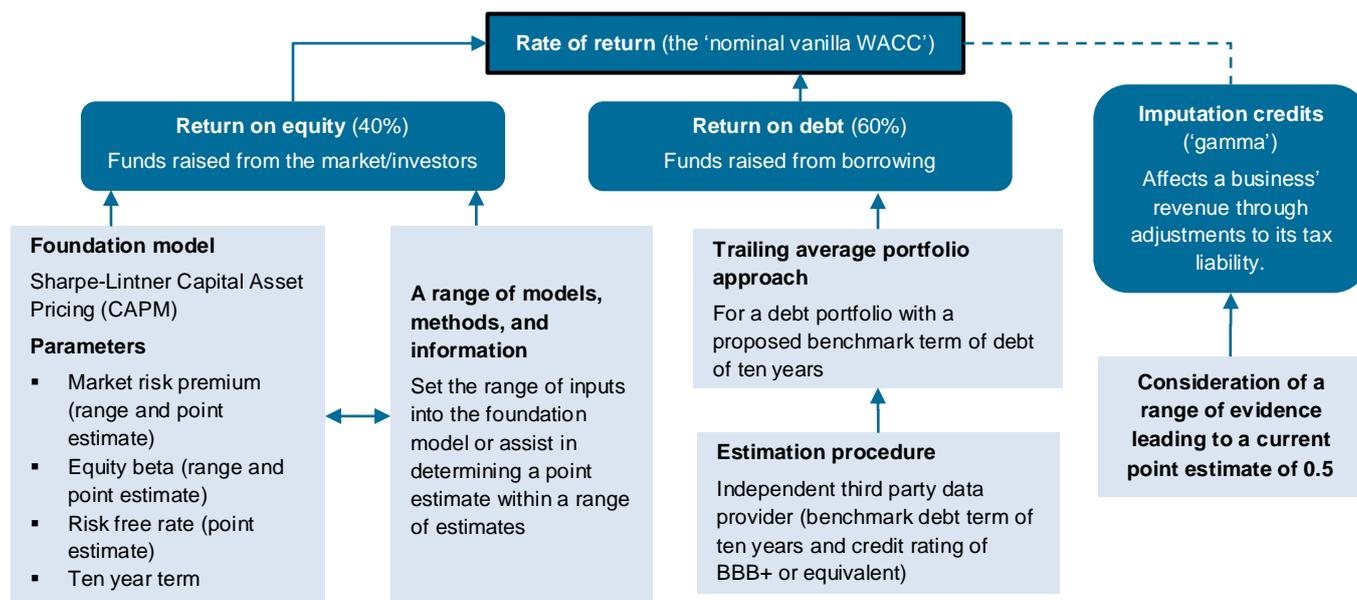
How do we estimate the return on equity?

Recognising there is not one perfect model to estimate the return on equity, our approach draws on a variety of models and information. Our starting point is the standard Capital Asset Pricing model (CAPM)—our 'foundation model.'

We then use a range of models, methods, and information to inform our return on equity estimate. We use this information to either set the range of inputs into the CAPM foundation model or assist in determining a point estimate within a range of estimates at the overall return on equity level.

Our approach to the return on equity balances providing predictability for investors and consumers while incorporating the latest market data.

Overview of the rate of return guideline



How do we estimate the return on debt?

Our approach to the return on debt is to consider the average interest rate that a network business would face if it raised debt annually in ten equal parcels. This is referred to as the trailing average portfolio approach. This approach assumes that every year, one-tenth of the debt of a network business is re-financed. As the return on debt is an average of the interest rates over a period of ten years, this approach leads to a relatively stable estimate over time.

Prior to the publication of this guideline, we had employed a different approach to determining the return on debt. The previous approach assumed that current interest rates are the best measure of the interest rates that are likely in the future.

To implement new approach, we are transitioning the benchmark business gradually. We start the transition by setting the return on debt allowance in a way similar to the previous regime. From there we update the regulatory allowance every year until it is reflective of the debt financing costs of a benchmark business that refinances one-tenth of its debt portfolio annually.

Our approach to the return on debt will closely align with the efficient debt financing practices of regulated businesses.

What are the parameters involved?

In order to promote clarity and transparency for our stakeholders, we are providing our current estimate of two inputs into our return on equity foundation model, together with estimates of the value of the imputation credits and the debt credit rating. The estimates we have included are determined as at December 2013. Over time these estimates may change.

The return on equity for a network business depends on the returns on a risk-free asset (the risk free rate) the returns to the broader market (the MRP) and the extent to which returns to equity for network businesses vary with market conditions in general (the equity beta).

As at December 2013, our market risk premium (MRP) point estimate is 6.5, chosen from within a range of 5 to 7.5 per cent. The MRP compensates an investor for the systematic risk of investing in a broad market portfolio. Analysis of historical estimates of the MRP show a long term average of about 6 per cent. We also have regard to another financial model, the dividend growth model, to determine whether we should adopt an estimate above, below or consistent with the historical estimate. This is a symmetric consideration. As at December 2013, the dividend growth model is above the historical average—leading to an estimate above 6 per cent.

The equity beta we have currently set to 0.7, chosen from within a range of 0.4 to 0.7. This implies that returns to network businesses vary less with economic conditions that returns for the market as a whole.

The risk free rate is determined by observing the return on ten-year Commonwealth Government Securities over a short period close to the start of the next regulatory period.

On the debt side, the required return will be estimated by reference to an independent market provider using a credit rating of BBB+ or its equivalent and a debt term of 10 years.

Our current estimate for the value for imputation credits (also known as 'gamma') is 0.5. Imputation credits are not principally related to the rate of return but affect a business' revenue through adjustments to its tax liability.

More information

The rate of return guideline is available on our website at <http://www.aer.gov.au/node/18859>.

This guideline forms part of the Better Regulation program. We initiated this program following changes to the regulatory framework in late 2012. The program includes seven new guidelines that outline our revised approach to determining electricity network revenues and prices, and our establishment of the Consumer Challenge Panel. For more information on the Better Regulation program please visit our website www.aer.gov.au/better-regulation-reform-program.