

### Cost of equity and Ofgem's plans for the RIIO2 price control

#### Context

- Owning and operating energy network infrastructure is a highly intensive business, with capital invested on a long-term (typically 40-60 year) basis, over multiple-price control periods.
- Since privatisation in 1990, energy network companies have delivered over £100bn of investment.
- In the next five years alone they are forecast by Ofgem to deliver some £45bn as energy network infrastructure evolves to new demands.
- As regulated monopolies, the amount of revenue network companies can collect from customers (Allowed Revenue) is set by Ofgem through the price control framework.
- This means that when designing a price control framework Ofgem must forecast the financing costs required to raise the capital that needs to be invested.
- Energy Networks Association (ENA) has commissioned Oxera to provide an independent analysis of the most accurate way of calculating the cost of equity and the level of that cost for the forthcoming RIIO2 consultation, on which Ofgem is currently consulting.

#### Methodology

- Determining appropriate estimates for the cost of equity for a price control is not a scientific process.
- Ofgem uses a basket of indicators to create an estimate. This creates challenges, for example:
  - How to translate from current market data on government bond yields into a risk-free rate (the theoretical rate of return of an investment with zero risk) assumption that will remain valid for the period up to at least 2026 (for a five year price control period) and potentially as far as 2031;
  - How to account for the possibility that the perceived risk of investing in energy networks has increased the premium paid to shareholders, and that this increase offsets the low Government bond yields that are used to inform the risk-free rate.
  - How to determine to what extent investors perceive network infrastructure to be risky (the factor known as the equity beta), when the only UK energy network with an equity market listing (National Grid) derives less than half of its revenues from businesses regulated under the RIIO framework.

The report addresses these challenges and suggests a range for the cost of equity that should be adopted under the RIIO2 framework.

#### Conclusions

The research finds:

- That the structure of the methodology for estimating the cost of equity under RIIO-1 still represents the best means of doing so and should be used for the RIIO-2 process.
- When comparing the risk of energy networks to other sectors such as water, which are considered to be broadly comparable, there may be an increase in fundamental risk differences between water and energy networks over the RIIO-2 period.

- The asset risk model for National Grid, an energy utility, tends to be higher than that of the two pure-play water comparators (United Utilities and Severn Trent)
- As there are limited data points for energy network betas in the UK, water networks may not be representative of the systematic risk exposure of energy networks over the RIIO-2 period.
- Energy networks over the forthcoming RIIO-2 price control will be accommodating a period of potentially rapid technological change, which will create uncertainty around patterns of expenditure for network reconfiguration.
- It is unlikely that exposure to such risks can be fully mitigated through regulatory mechanisms (e.g. indexation, pass-through, volume drivers, re-openers, etc.). The residual risk will be borne by equity investors.
- Limiting the change in the allowed return on equity for the RIIO-2 controls compared with the RIIO-1 controls would support long-term investment decisions.

The research recommends a range of 5.51–6.34% to inform the assumption for the real (RPI-deflated) cost of equity in RIIO-2. The March 2018 RIIO-2 Framework Consultation proposed that equity costs be between 3% and 5%.