

# Cost of equity for NGET at RIIO-3

A summary paper prepared for NGET

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## 1 Introduction

This paper summarises the suite of evidence that has been collated by National Grid, supported by its expert consultants, on the underlying CAPM parameters and sets out what this prevailing evidence base means for the appropriate forward looking cost of equity (COE) range for NGET at RIIO-3.

We draw input on the three CAPM parameters – Risk Free Rate (RFR), Total Market Return (TMR) and beta – from other reports dedicated to the examination of each. In particular:

- our starting point for all three parameters is the COE range and underlying CAPM parameters developed by Oxera for the ENA, as set out in their report on COE;
- we supplement Oxera's beta analysis with insights from our beta triangulation report for NGET, noting that this report in turn relies on the detailed analysis of RIIO-ET3 risks prepared by PWC;
- we supplement Oxera's analysis of TMR with insights from our TMR Glider report for NGET; and
- we compare the results of CAPM ranges drawn from this set evidence with the cross-check ranges set out in our investability report for the ENA.

## 2 Oxera's baseline COE

Oxera's analysis of the appropriate baseline COE for RIIO-3 suggested a range of 5.08%-6.48%. The estimates of each of the parameters that informed this range is shown in the table below.

**Table 1 Overall COE scenarios**

	Oxera RIIO-3 range	Oxera RIIO-3 midpoint
RFR	1.84%	1.84%
TMR	6.50–7.50%	7.00%
Equity beta	0.70–0.82	0.76
Cost of equity	5.08–6.48%	5.78%

Source: Oxera

Note: All scenarios are geared at 60% notional gearing. Cost of equity is shown in post-tax CPIH-real terms.

In setting out guidance on how to interpret this range, Oxera noted that their review had not taken account of sector specific risks.

*“The work is to be limited to the CAPM parameters that are applicable to all gas and electricity networks—sector-specific risks are outside the scope of this work, whether or not they affect the CAPM parameters (hereafter, ‘baseline estimates’).”*

Oxera also noted that:

*“Overall, the weight of evidence suggests that the CoE for RIIO-3 is most likely to be above the middle of the Oxera range based on CAPM parameter estimates.”*

We use Oxera’s range, and their proposed midpoint, as a foundation but note that, given Oxera’s scope of work and their conclusions, this range is likely to underestimate the COE for the ET sector and for NGET.

### 3 Beta

As discussed in our beta triangulation report for NGET, we consider that the midpoint of Oxera’s beta estimate can serve as a lower bound for the beta for NGET. However, like Oxera<sup>1</sup>, we also consider that this baseline beta does not adequately reflect heightened construction risk, and the wider risks associated with delivering high RAV growth, that will affect NGET during the RIIO-3 period and beyond.

To address this, as recommended by PWC following their detailed review of RIIO-3 risk, we explore the effect of placing a small weight on the construction comparators proposed by PWC. Following their review, and in the light of regulatory precedent, PWC has suggested that it may be appropriate to place 10-15% weight on these construction peers.

<sup>1</sup> Oxera (2024) RIIO-3 Cost of Equity – Prepared for ENA, Section 2.3.3

We therefore consider two beta scenarios for NGET as upper and lower bounds:

- a low scenario of 0.35, which adopts Oxera's mid point, noting that this lower bound will likely understate risk during ET3; and
- a high scenario of 0.40, where 12.5% weight is placed on construction betas, supported by the mid-point of the range recommended by PWC.

## 4 TMR

In its report for the ENA on COE, Oxera proposes a TMR range of 6.5% to 7.5% with a point estimate of 7%. Oxera concludes that this recommendation is consistent with UKRN guidance and analysis of past regulatory practice. Oxera also find that cross-check evidence supports an overall CoE at the top end of its recommended CoE range (and therefore implicitly, a TMR of 7.5%).

Oxera's findings on TMR are supported by the analysis we present in our TMR Glider report. The various specifications of our Glider would suggest a TMR at the current gilt yield levels to be in the range of 7.55%-7.86%.

Reflecting on the available evidence, we consider that at RIIO-3 it will be important to take into account:

- the recent rapid change in interest rates which has brought an abrupt end to the era of "cheap money" and reflects a fundamental shift in the macro-economic environment; and
- how regulators have reacted to moves in interest rates historically, in order to ensure an appropriate degree of regulatory consistency.

Taking these considerations together, we would propose two scenarios for TMR, one at **7%** and the other at **7.5%**.

- The 7% scenario is in line with historical average realised returns, based on c. 120 years of DMS equity return data. This is a well-understood set of calculations within the GB regulatory debate and needs little further explanation.
  - We regard this value as conservative, given the predictions from our Glider based on the current level of gilt yields, albeit that setting TMR at 7% would still reflect to some extent changes in the interest rate environment since RIIO-2.
  - Based on our analysis of how regulators have in practice responded to changes in interest rates historically, it would however fail to move TMR as far up in response to higher rates now as it has moved down in response to lower rates in the past.
  - This estimate would be in line with the UKRN guidance, supported by placing most weight on historic ex post averages.

- The 7.5% scenario is in line with the lowest of our Glider prediction. This estimate would be more consistent with previous regulatory decisions, i.e. it would have the effect of moving TMR back up to levels set by Ofgem when gilt yields were last at the now-prevailing levels..

## 5 Overall COE range

Based on the scenarios set out above, we arrive at a range of **5.8% to 6.9%** for the overall COE for NGET for RIIO-3, with a midpoint of 6.3%.<sup>2</sup>

**Table 2 Overall COE scenarios**

	Low	High
RFR	1.84%	1.84%
TMR	7.0%	7.5%
Asset beta	0.35	0.40
Equity beta	0.760	0.892
Cost of equity	5.78%	6.89%

Source: Frontier analysis

Note: All scenarios are geared at 60% notional gearing. Cost of equity is shown in post-tax CPIH-real terms.

The top end of the range is materially higher than the low end, but this reflects the fact that Oxera's analysis, and hence its range, explicitly does not account for:

- forward looking sector specific risks; and
- the full extent of regulatory precedent on how TMR has moved with interest rates.

In contrast, the top end of the range reflects both sector specific risk and the effect of embedding past regulatory practice in respect of how TMR has moved with the wider interest rate environment.

The midpoint of this range (6.3%) sits below the point estimate of our hybrid bond cross check. The low end of the range barely passes the hybrid bond cross check, as it is in only just in line with the 5.8% lower bound suggested by this analysis, but far below the mid-point. The high scenario provides a point estimate that is slightly above the mid-point of the hybrid bond cross-check, but still well below the top of the hybrid bond cross-check range of 8.5%. Taken in the

<sup>2</sup> Above we have not discussed RFR. For this purpose, we have simply adopted Oxera's proposal as a foundation, and used it across all scenarios.

round, we regard the overall location of this range to be conservative when compared to cross-check evidence.

We note that this range is relatively broad, and that there will be merit in seeking to attenuate this range through further work and discussion. However, we remain at a relatively early stage of the process, and note that over the months ahead there will be a need to reflect on revealed capital market information and undertake further analysis. Nevertheless, these ranges reflect the suite of evidence on RIIO-T3 risks gathered so far, as well as the effect of the prevailing interest rate environment, and provide an indication of where the final COE estimate is likely to need to land to ensure RIIO-3 is investable and will aid the rapid pursuit of Net Zero.