Investability of RIIO-ET3 draft determinations

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Prepared for Ofgem on behalf of the Transmission Operators
15 August 2025

Executive summary

This note sets out the independent view of Oxera Consulting LLP (Oxera) on the investability of RIIO-ET3 (ET3), as outlined in Ofgem's RIIO-3 draft determinations (DDs). Commissioned on behalf of Electricity Transmission Operators, this work builds on our earlier engagements with investors on the investability challenge, and work we have done to date, including a roundtable discussion between National Grid investors and Ofgem on 10 March 2025.

The Oxera team for this work also carried out extensive investor engagement as part of the National Grid roundtable preparation, and so has the benefit of this firsthand experience. Likewise, the lead author Simon Wilde held a number of roles at Ofgem, including directing the financial aspects of the RIIO-2 network price control as a Senior Financial Advisor.

In the first instance, it is crucial for the sector that (i) it is able to raise the equity capital needed, and (ii) customer bills rise manageably, in order to collectively finance the unprecedented capital expenditure required across coming price controls. Failure to ensure investability could lead to foregone investment and significant adverse customer impact.

At the roundtable, through engagement, and equity analyst commentary, investors articulated their investability requirements: (i) **the sector needs to provide a pathway to achieving a nominal return on equity of 9–10%**, and (ii) earnings and dividend profiles must be such that they **provide confidence that the required returns on regulatory equity (RoRE) will translate into investors' earnings per share (EPS) within the period**, and not be deferred into future price controls.

Reviewing Ofgem's DDs relative to these requirements shows that **Ofgem has delivered positive elements to strengthen the investability of the sector**. These inroads clearly reflect Ofgem's willingness to engage with investors as the sector embarks on an unprecedented multi-control capital expenditure cycle. **However, our review shows that the DDs remain short of overcoming the investability challenge outlined by investors**.

Specifically, there remain issues with the base return and incentives design of ET3, such that **there is no clear pathway to achieve the 9–10% nominal return required by investors**. These are detailed below.

Firstly, **the cost of equity (CoE), i.e. the base return that is the primary component of the return required by investors, is set too low**. This is because Ofgem's DD specification of the CAPM insufficiently reflects current market conditions and forward-looking risks faced by the sector. This conclusion is driven by the following considerations.

- Ofgem's own cross-checks, when taken together, suggest the DD allowance fails to satisfy its investability test.
- Other cross-checks, including debt-based cross-checks (Oxera's ARP–DRP, hybrid bonds analysis) and US market returns all suggest a CoE c.6.5% (CPIH-real) or higher.
- Latest market-based evidence from Sizewell C (SZC) offers a new cross-check. Its reported allowed return of 10.8% (CPIH-real) at 65% gearing is significantly higher than the DDs. Centrica has indicated that it expects nominal internal rates of return of 10–12%, with the lower end associated with a derisked worst case cost overrun scenario. These estimates are at or above investors' 9–10% nominal return expectations, while containing significant risk protections additional to those in ET3.

To reflect these considerations, Oxera's updates to the capital asset pricing model (CAPM) show that each parameter should be set higher than at the DDs:

- The total market return (TMR) approach should be more sensitive to interest rates, albeit being relatively more stable than a fixed equity risk premium (ERP) approach.
- The risk-free rate (RfR) should reflect a convenience premium.
- The beta should more clearly reflect forward-looking factors and rely less on past performance data.

As a result, Oxera derives a CoE of 6.38–7.02% (CPIH-real), c.75–140 bps higher than Ofgem's DD proposed estimate of 5.64% (CPIH-real), at 55% gearing.[1]

Secondly, referring to Ofgem's calibration of TOTEX and ODIs, we find that certain mechanisms are unclear and/or incomplete. While this could be addressed in the Final Determination, this together with TOTEX targets means that **investors are unable to sufficiently attribute potential rewards for high performance in their RoRE forecasts.** By extension, they are thus unlikely to conclude that the 9–10% return target is achievable.

Importantly, however, **our review also shows that the overall gap between the DDs and investor requirements is bridgeable**, and the investability challenge surmountable. We outline below an example of the regulatory settlement that could come more closely to satisfying the investability tests.

- **Increasing the base allowed return on equity to 6.5% (CPIH-real) at 55% gearing.** This could be achieved by selecting parameters for the CoE in line with Oxera's recommended CAPM specification, or revising Ofgem's equity indexation approach to include a time-varying estimate of the TMR based on current market conditions, where both the RfR and TMR are indexed (up or down) annually. This level is **supported by Ofgem's own sector CoE average cross-check value of 6.5%**, as well as other cross-checks such as debt premia analysis via Oxera's ARP–DRP approach, hybrid bonds analysis, US returns, and market evidence from SZC.
- Refining the DD ODI package and calibrations to **cement investor perception of a credible pathway to, at least, 50bps of incentives** in addition to the baseline allowed cost of equity

[1] At 60% gearing, Oxera derives a CoE of 6.84–7.57% (midpoint to high, CPIH-real), c.80–153bps higher than Ofgem's DD proposed estimate of 6.04% (CPIH-real).

within the RoRE—with the higher return being achievable via delivery of strong company performance.

The result of these changes would be to **offer credible potential returns of c.9% nominal.** It is also imperative that the regulatory settlement strikes the right balance between base returns and performance incentives. Where the base return is set below what is warranted by the evidence (i.e. below c. 6.5% CPIH-real), the outperformance incentives from the ODI package must then offer greater uplift than the 50bps applied above, in order for the total return to at least achieve the 9–10% nominal return required by investors.

We note that **Ofgem could credibly set returns higher than these levels**, e.g. through the RfR and beta adjustments described above, and/or by giving weight to its infrastructure fund cross-check or to reported return levels under the SZC RAB regime.

Overlaying the proposals above however, we reiterate that a key barometer throughout the process of calibrating the regulatory package for ET3 should be to ensure that any package would at least deliver the **minimum** stated investor requirement of a 9–10% nominal return, in order to help ensure the sector is investable.

Introduction

The Transmission Operators have asked Oxera to provide our independent view on the investability of ET3, as outlined in Ofgem's RIIO-3 draft determinations. This note builds on the work we have done with the Transmission Operators throughout the past year, when we engaged with investors to gather evidence on investability. For example, we conducted a series of one-to-one interviews and facilitated a roundtable discussion on behalf of National Grid between investors and Ofgem on 10 March 2025 (the roundtable). Our findings were summarised in an Oxera report submitted to Ofgem following the roundtable.[2]

We continue to emphasise that investability is of critical importance to ET3 given the step change in investment requirements, for this and

[2] Oxera (2025), 'RIIO-ET3 need for investability', 3 April.

future price control periods, and hence the need to raise external equity and debt capital, on a scale not seen since privatisation.

In this note, we cover the following themes:

- in section 1, we recap the key messages from the National Grid roundtable and investor engagement;
- in section 2, we outline our assessment of the investability of the ET3 DDs;
- in section 3, we suggest possible ways to overcome the investability challenge by bridging the identified gaps.

1 Key messages from the roundtable and investor engagement

At the roundtable, investors provided a clear articulation of their investability requirements.

1 Investors said they need to be able to see **a pathway to a nominal return on equity of 9–10%**, to be competitive with other markets (such as US and international utilities with adjusted returns, as well as other 'defensive' sectors such as pharmaceuticals and real estate investment trusts), as further investment in UK energy networks competes against other opportunities.

2 **Earnings and dividend profiles** give investors confidence that the values for the baseline CoE allowance and incentives-based income as presented by a regulator within the estimated RoRE range will translate into investors' earnings per share (EPS). Return *on* capital allowances need to be made available to investors rather than deferred into future price control periods through return *of* capital decisions such as depreciation, asset life and capitalisation policies.

While investors were clear about their 9–10% nominal return requirements and their preference for a simpler approach to achieve this (akin to that of the US), they expressed a degree of flexibility regarding the mix between the base return allowance and incentive income. This had the caveats that they still expected the base return to be the primary component, and that the incentive mechanisms needed to be clear and well-understood, as well as being calibrated in such a way as to allow a credible opportunity for outperformance.

2 Review of the DDs

The ET3 DDs contained positive elements supporting networks investability, including the following:

- being explicit about the substantial £80bn headline TOTEX levels for electricity transmission, albeit including an indicative volume of expenditure of £70bn under uncertainty mechanisms (UMs), with an expected new equity requirement of £22bn;[3]
- partial mitigations to higher capex delivery risk introduced via the TOTEX Incentive Mechanism (TIM), relative to ET2 (albeit that the Transmission Operators have concerns about the design of the specific single mechanism);[4]
- accepting that the investment programme would lead to increased network costs but would also result in significant consumer savings through enabling renewables and alleviation of network constraints, resulting in a reduction in consumer net costs once these savings are taken into account;[5]
- signalling the importance of output delivery incentives (ODIs) in incentivising these positive outcomes for consumers, including material new incentive elements, such as the Innovative Delivery Incentive (IDI), with a potential opportunity for strong performance to earn up to 50–100bps (although noting the concerns outlined below).[6]

As for the financial framework with the most explicit impact on investability, the following decisions proposed by Ofgem provide additional support.

- Reducing the level of the UM TOTEX capitalisation rate from the natural average level of 100% to 85%[7] to bring cashflows forward and hence support debt financeability (including by

[3] Ofgem (2025), 'Consultation - RIIO-3 Draft Determinations - Finance Annex', para. Table 22. Ofgem (2015), 'Consultation - RIIO-3 Draft Determinations Overview Document', p. 11. Oxera analysis of Ofgem's BPFMs.
[4] Ofgem (2025), 'Consultation – RIIO-3 Draft Determinations – Electricity Transmission', paras 5.188–5.205.
[5] Ofgem (2025), 'Consultation - RIIO-3 Draft Determinations Overview Document', p. 7.
[6] Ofgem (2025), 'Consultation – RIIO-3 Draft Determinations – Electricity Transmission', paras 3.212–3.230.
[7] SSE has requested a lower capitalisation rate for Uncertainty Mechanisms so the overall capitalisation rate is in line with their Business Plan ask of no more than 80%. This is based on their funding requirements due to their elevated capex to RAV ratios over the period.

recognising a target rating of Baa1 or BBB+) and reduce new equity injection requirements.[8]

- Proposing a higher baseline allowed return on equity than in the Sector Specific Methodology Decision (SSMD)—i.e. 5.64% (CPIH-real) at 55% gearing in the DDs, higher than the SSMD on consistent gearing terms[9]—with increases in the RfR for market movements, and in the case of beta and TMR, increases due both to market movements and methodological improvements,[10] albeit noting concerns with these estimates below.

In relation to the allowed return, we also welcome Ofgem adjusting its TMR calculation approach to exclude the Cost of Living Index (COLI)-Consumption Expenditure Deflator and serial correlation adjustments. Likewise for beta, we welcome the widening of the beta sample, including an additional water comparator, Pennon, and the confirmation of the inclusion of the European energy networks, as this supports beta estimates which more robustly reflect the risks for the sector.

However, the DDs fell short of overcoming the investability challenge consistently outlined by investors at the roundtable, and market commentators. In particular, **we do not see a credible pathway in the package as outlined by the DD to the 9–10% nominal return** as required by investors.

We observe that Ofgem has committed to using cross-checks evidence as Step 2 of its review of the DD returns estimate, and as its primary investability test. As part of this, in its DD Ofgem cites three sector CoE cross-checks, set out as follows.[11]

- Market to asset ratio (MARs)-implied CoE of 4.2–6.2% (CPIH-real);
- OFTO-implied equity IRR of 5.7% (CPIH-real);
- Infrastructure fund implied equity IRR of 8.5% (CPIH-real).

[8] Ofgem (2025), 'Consultation - RIIO-3 Draft Determinations - Finance Annex', para. 5.8.
[9] Using the 5.43% (CPIH-real) midpoint of the range at 60% gearing from the SSMD. Ofgem's implied midpoint is based on the midpoints of each parameter of the CAPM as in the RIIO-3 SSMD Allowed Return on Equity Early View Summary Calculations. Ofgem (2024), 'RIIO-3 SSMD Allowed Return on Equity Early View Summary Calculations.xlsx'.
[10] Ofgem's risk-free rate (RFR) has changed from 1.18% in the SSMD to 2.01% in the DDs reflecting market movements. Ofgem (2024), 'Decision –RIIO-3 Sector Specific Methodology Decision – Finance Annex', table 13. Ofgem (2025), 'Consultation - RIIO-3 Draft Determinations - Finance Annex', Table 17.
[11] Ofgem (2025), 'Consultation - RIIO-3 Draft Determinations - Finance Annex', Table 19.

However, taking the mean or simple average estimate of these cross-checks suggests a cross-check-implied CoE of 6.5% (CPIH-real),[12] which is c.85bps higher than the 5.64% CAPM-implied CoE that Ofgem has estimated for the sector. As a result, Ofgem's proposed CoE allowance is not supported by its cross-checks—indicating that it has not met its own investability check.

This disconnect between Ofgem's stated investability intention and the DD allowed CoE estimate may have been exacerbated by Ofgem choosing to reject or place no weight on additional cross-checks, which were endorsed in our investor engagement and discussed at the Ofgem investor roundtable. These include the cross-checks from US utility sector returns and debt-based cross-checks. We expand on this in section 3.

2.1 Specific challenges to investability in the ET3 DD

As discussed above, the pathway to meeting the total return requirements of investors consists of ensuring the adequacy of the base return allowance and the potential for outperformance on output or cost incentives—however, neither is currently sufficiently supportive of investability in the DDs. We explore the specific drivers of this in this section.

Firstly, we consider that Ofgem's estimate of the base return on equity, estimated via the CAPM, does not sufficiently reflect current market conditions. This is detailed further in the work we are undertaking on behalf of the Energy Networks Association (ENA), and we set out the key challenges below.

The main driver of Ofgem's insufficient CoE estimate is that the **TMR** has not been sufficiently increased since ET2, despite the significant increase in interest rates. In particular, the RfR allowance has risen by around 360bps from -1.58% in ET2 to 2.01% in ET3.[13] At the same time however, Ofgem's TMR estimate has increased by only 40bps from 6.5% to 6.9% (CPIH-real), implying a low sensitivity of c.10% of the TMR estimate to the RfR. In other words, Ofgem's DD has kept the TMR

[12] Based on a simple average of the three cross-checks listed (using the midpoint of the MARs cross-check), and set out by Ofgem in its DD. We exclude the Investment manager TMR cross-check from the average due to it being a parameter-level cross-check that does not test the sufficiency of the allowed return as a whole.
[13] Reflecting CPIH-real RfR allowance as of the corresponding cut-off dates for ET2 final determinations and ET3 draft determinations on 30 October 2020 and 31 March 2025. Ofgem (2021), 'RIIO-2 Final Determinations – Finance Annex (REVISED)', 3 February, Table 8.

relatively insensitive to interest rates, which suppresses its CoE estimate.

While investors did not suggest that TMR (or indeed the CoE) changes in a one-to-one relationship with the RfR, the implied TMR–RfR sensitivity of approximately 10% is too low to be consistent with the guidance provided by investors on their valuation approaches. In particular, investors stated that their benchmark discount rates are regularly updated based on the relevant RfR:[14]

'In terms of spread between cost of capital and interest rates, the allowed returns must be proportionate but not necessarily 1:1.'

'How much our targets change? Is this a reasonable assumption?—It depends. Cost of equity goes up mechanically with the RfR. No one uses fixed TMR approach, there is a RfR and a risk premium above it.'

To align with investor feedback, a higher sensitivity of TMR to changes in gilt yields is implicit. The sensitivity would be applied in either direction, whether interest rates go up or down. We discuss this further in the following section.

The CAPM-implied CoE estimate is also suppressed by Ofgem failing to account for the **convenience yield** when assessing the RfR. While we note that the UKRN guidance does not 'propose alignment to a particular stance' on this topic, [15] there is a growing base of robust evidence supporting its inclusion. Increasingly, other regulators are including such an adjustment (e.g. the UK Civil Aviation Authority (CAA), the CMA, the Northern Ireland Utility Regulator, the Italian regulator ARERA, as well as the German regulator BNetzA),[16] and it is being assessed by the CMA in the current PR24 water redetermination.[17]

As for **beta**, Ofgem does not separately account for forward-looking risks faced by energy networks or for the 'low beta anomaly'. Instead, it relies on comparators' historical data to be sufficiently representative of forward-looking risks. Failing to reflect the outlook of higher capital

[14] Oxera (2025), 'RIIO-ET3 need for investability', 3 April, p. 29.
[15] UKRN (2022), 'UKRN guidance for regulators on the methodology for setting the cost of capital', p. 14, https://ukrn.org.uk/app/uploads/2023/03/CoC-guidance_22.03.23.pdf (accessed on 7 August 2025).
[16] For detailed references, see Oxera (2024), 'RIIO-3 cost of equity', 23 February, p. 25, footnote 33.
[17] Building on the CMA's PR19 redetermination, where it estimated the RfR based on gilt yields plus one half of the spread between gilts and AAA corporate bonds to incorporate evidence on the presence of a convenience yield. See: Competition and Markets Authority (2021), 'Anglian Water Services, Bristol Water plc, Northumbrian Water Limited and Yorkshire Water Services Limited price determinations: Final report', 17 March, para. 9.264.

expenditure into its beta estimates is in direct contrast to its position in RIIO-T1, where Ofgem stated that 'We regard the scale of investment as the most significant differentiator of risk affecting both the asset beta (and therefore, the cost of equity) and the appropriate level of notional gearing'.[18] This could altogether lead to a beta estimate that is conditioned only on past performance data, thus failing to represent current or future circumstances and risks.

Building on these issues within Ofgem's DD, Oxera has updated its assessment of the CAPM-implied CoE parameters, concluding that all three CAPM parameters need to be higher than Ofgem's DD estimates.

Specifically, Oxera's updated initial CAPM-implied range is 5.77–7.02%, compared with Ofgem's 4.76–6.45%, both in CPIH-real terms at 55% gearing.[19] We also conclude that the appropriate point estimate should be towards the upper end of this range, on the basis of evidence from debt-based cross-checks, which are detailed in the following section.

As a result, Oxera proposes a CoE range of 6.40–7.02% (CPIH-real) at 55% gearing. This aligns to the mid to high points of Oxera's CAPM-implied CoE estimation, based on forward-looking considerations with respect to TMR and beta. **This is approximately 75–140bps higher than Ofgem's DD proposed estimate of 5.64% (CPIH-real).**

Secondly, the DD also confirmed Ofgem's 5% allowance for new equity issuance costs. In justifying its quantification, Ofgem accepted direct issuance costs of 3%, and indicated that the remaining 2% is adequate to cover indirect or dilution costs. This is apparently based on an interpretation of Oxera's analysis of indirect costs provided to Ofgem on behalf of networks.[20]

While Ofgem's use of this evidence would seem to imply some weight is given to the Oxera study, we note that the 2% indirect cost is only supported by the lower quartile of costs from our analysis. No justification is provided as to why the lower quartile is the appropriate measure. Noting that these costs relate to market reactions, and hence

[18] Ofgem (2012), 'RIIO-T1: Final proposals for National Grid Electricity Transmission and National Grid Gas', para. 3.15.
[19] At 60% gearing, Oxera derives an initial range of 6.17–7.57% (CPIH-real). On the basis of evidence from debt-based cross-checks, Oxera proposes a CoE range of 6.84 – 7.57% (CPIH-real) at 60% gearing, aligning to the mid to high points of its initial CAPM-implied CoE estimation. This is approximately 80–153bps higher than Ofgem's DD proposed estimate of 6.04% (CPIH-real).
[20] Oxera (2024), 'Estimating the appropriate allowance for new equity issuances for RIIO-3', prepared for SSE, 1 March.

are largely outside of companies' control, we consider that a credible approach could be to instead apply the central estimate.[21]

In addition to challenges with the base return, we also highlight issues with the incentive mechanisms on ODIs and TOTEX which impinge on the investability of the sector. As noted above, while the pathway to achieving investors' target return is formed primarily of the base return, it is imperative that the incentive design of the regulatory settlement enables this further, such that the achievement of nominal returns of 9–10% in ET3 can be reasonably expected.

ODIs have the potential to help bridge the gap between the base return and the 9–10% investor requirement. However, based on the DD, Transmission Operators assess limited ability for the package to deliver material return uplifts. As an example, the IDI, while welcome, lacks the detail to provide confidence to investors. In particular, relying on the panel to periodically score performance may not help with the level of investor confidence, as it implies subjectivity over the outturn level of returns.

This lack of clarity is compounded by several challenges on **TOTEX** mechanisms. For example:

- the OE target of 1% lacks sufficient supporting/compelling evidence;
- for indirect costs, there is an overreliance on econometric modelling based on historical relationships, which fails to capture each transmission operator's forward-looking pressures;
- the ex ante allowance for risk and contingency costs on load related and non-load related CAPEX set at 5% of a scheme's direct costs is arbitrary and does not account for the varying maturity, size, and development stages of different projects.

In summary, the base return being set too low, coupled with uncertainty in relation to the level of ODIs and TOTEX that can be achieved, leaves little room for investors to build an achievable and credible pathway to the 9–10% nominal return that is required of an investable sector.

[21] The Oxera study has found evidence of mean under-pricing in regulated utility SEOs of around 9%.

3 Bridging the gaps: pathway to investability

Despite the material issues within Ofgem's DD position, and the fact that the proposed return does not meet investor expectations supported by investability tests based on market data, we consider that **the overall gap between the DD and the investor requirements is bridgeable.**

In particular, as highlighted above, the quantum of difference in the estimates for the CoE is in the range of 75–140bps. An increase in the ET CoE by 75–140bps translates to approximately £2–4 annual impact on the average household electricity bill.[22] While the overall DD position does imply an increase in the network charges paid by households, these are offset by the other benefits that are unlocked through the increased network investments. For example, increased network capacity is necessary to connect new renewable generation capacity to the grid, which may allow for reduction of the wholesale electricity cost over the longer run, in addition to realising additional Net Zero-related benefits.

3.1 Cross-checks and market evidence

To inform the pathway to investability, Ofgem rightly emphasises the importance of cross-checks to the CAPM-implied CoE, for the calibration of the regulatory return allowance. In addition to being the key investability test of the returns allowed by the regulatory settlement, cross-check evidence can also be used to truncate the baseline CAPM CoE range or to inform the setting of the point estimate within the range.

However, as discussed in the previous section, Ofgem's own analysis of cross-checks evidence already shows that its own DD allowance is insufficient. Instead, we observe that this evidence is more compatible with the return levels required by investors and shown by Oxera analysis. We thus surmise that the DD CoE allowance should be more closely aligned to Ofgem's own cross-check evidence. This would narrow the gap between the DD and investor requirements, easing further steps towards ensuring investability.

[22] The implied annual customer bill impact estimated by NGET is approximated based on the Ofgem DDs Impact assessment—Ofgem cites a £19 annual bill impact for the 2.2% ET increase in WACC relative to RIIO-2. Based on Ofgem (2025), 'RIIO-3 Draft Determinations Impact Assessment', 1 July, p. 17 and 32

Additionally, Ofgem should consider a wider range of cross-check and market evidence, to offer further support to its investability assessment. In particular, we highlight the evidence of **debt-based cross-checks, such as analysis of debt premia (ARP–DRP) and analysis of hybrid bonds.** We detail these below, and consider also market-based evidence, i.e. US market returns and Sizewell C.

Considering Oxera's ARP–DRP analysis, a key benefit is that it captures contemporaneous market evidence outside of a conventional CAPM estimation and allows assessments of investability with respect to both spot and longer-term data from debt capital markets. In response to increasing engagement with this cross-check, including during the ongoing PR24 consultations and (re)determination process, Oxera has been continuously refining its methodology. This includes Oxera's application of ARP–DRP to Ofgem's RIIO-ET3 CoE allowance, which at 55% gearing suggests a lower bound for the CoE of 6.47% (CPIH-real). As Ofgem has stated that it has performed its own ARP–DRP analysis,[23] we invite an open discussion with the Ofgem team to discuss and explore the appropriate specifications of this debt-based cross-check model.

Another debt-based cross-check is the analysis of hybrid bonds. Evidence from the analysis of hybrid bonds suggests a CoE range of 5.8–8.0% (CPIH-real), pointing at the insufficiency of Ofgem's CoE allowance based on the midpoint of the check.

Furthermore, we encourage Ofgem to re-examine its conclusions regarding **the US cross-checks**, which clearly point to CoE levels materially above the DDs. This is particularly important considering the global universe of investment opportunities highlighted by investors throughout the engagement process, and their focus on the opportunities in this market. Ofgem engage on this point in the DDs, with a discussion on the relative risks of the two jurisdictions. We welcome Ofgem's engagement on the relative risk of the US regime and suggest further analysis is undertaken.

Finally, we note that since the publication of DDs, market information on the agreed baseline returns for the **Sizewell C nuclear RAB** scheme has become publicly available. We consider this to be a further relevant market-based cross-check for Ofgem to take into account. Specifically, it has been reported that the allowed CoE for SZC's initial period is 10.8%

[23] Ofgem (2025), 'Consultation - RIIO-3 Draft Determinations - Finance Annex', para. 3.100.

(CPIH-real) at 65% gearing.[24] This would be the equivalent of an 8.9% (CPIH-real) return at 55% gearing, more than 3% higher than Ofgem's point estimate of the ET3 DD allowed CoE.

Centrica—an investor in SZC—has indicated it expects nominal equity internal rates of return (IRR) in excess of 12% based on the allowed return, and an IRR exceeding 10% even at the extreme downside scenario of maximum cost overruns.[25] Notwithstanding that this reflects the risk-return requirements for new nuclear, rather than electricity grids, we note that these returns are in excess of investors' 9–10% nominal return requirements.

3.2 CAPM parameters

Expanding on the evidence above, we consider there to be several key areas which are likely to be the most impactful in aligning the regulatory settlement with investor expectations to ensure investability. These are listed below.

CAPM RfR—Ofgem may choose to recognise the persistent evidence for the existence of the convenience yield, leading to an upward adjustment of the RfR by 0.24% and an increase in the CoE to 5.70% (assuming other parameters are kept constant).

CAPM beta—Ofgem may choose to explicitly recognise the impact of the increasing capital intensity as a material risk, as it has done in RIIO-T1,[26] and seek to examine the impact of this on the CAPM beta.[27] Analysing this would allow forward-looking factors, e.g. the rising scale of investment, to be captured within the equity beta calculation, thus improving on the use of only outdated past performance data.

CAPM TMR—Ofgem's DD position of 6.9% is characterised as a *'through-the-cycle'* TMR estimate. This approach understandably leads to a degree of caution and 'stickiness' in estimates, as any TMR decision would logically carry through to subsequent price control periods regardless of the change in underlying interest rates.

[24] Centrica (2025), 'Centrica acquires 15% stake in Sizewell C nuclear power station', 22 July, https://www.centrica.com/media-centre/news/2025/investment-in-sizewell-c/.
[25] Ibid, p.2.
[26] Ofgem (2012), 'RIIO-T1: Final Proposals for National Grid Electricity Transmission and National Grid Gas', 17 December, para. 3.15.
[27] Operational gearing is a measure of a firm's fixed cost relative to its total costs. Operational gearing has a similar effect on the risk of a firm's assets (and thus the corresponding required return) to the effect that financial gearing has on equity risk.

Alternatively, Ofgem may choose to recognise that if the 'through-the-cycle' TMR approach is treated as a 'fixed' TMR approach, it will always lead to an underestimation of the required return on equity when interest rates are above the long-term average (and vice versa). A revised approach could reconsider *equity indexation* and include an explicit adjustment to the TMR based on changes in the underlying gilt yields, while maintaining a TMR policy that is 'relatively more stable' than the ERP. For example, if this adjustment was set at a 40% sensitivity (rather than the implied c.10% in the DDs, as discussed above), the TMR would increase to 7.9% (based on the 6.5% ET2 TMR and subsequent changes in Ofgem's RfR allowance based on gilt yield) resulting in a CAPM CoE of 6.4%, which is more closely aligned to the CoE proposed by Oxera and supported by the range of market-based cross-checks. Symmetrically, an indexed approach would also lead to an automatic decrease in TMR in future price controls if gilt yields decrease.

Potential approach for Final Determinations

Bringing these insights together, we conclude that the gap between investors' requirements and the DD can be bridged. By way of illustration, and without prejudice to the full set of issues that we identify above and in our more detailed cost of capital reports for ENA, we show an example of an outline package that comes closer to meeting investability tests.

- **Increasing the base allowed return on equity to 6.5% (CPIH-real) at 55% gearing**, This could be achieved by selecting parameters for the CoE in line with Oxera's recommended CAPM specification, or revising Ofgem's equity indexation approach to include a time-varying estimate of the TMR based on current market conditions, where both the RfR and TMR are indexed (up or down) annually. This level is **supported by Ofgem's own sector CoE average cross-check value of 6.5%**, as well as other cross-checks such as the Oxera ARP–DRP approach, hybrid bonds analysis, and US returns, hence providing a more robust assessment of returns to ensure investability.
- Refining the DD ODI package and calibrations to **cement investor perception of a credible pathway to, at least, 50bps of RoRE outperformance** above the baseline allowed cost of equity, based on delivering strong company performance. Details of this are outside the scope of this report, but we would note the importance of significant incentive package refinement required to deliver this.

The result of these changes would be to **offer an expected return of c.9% nominal**. It is also imperative that the regulatory settlement strikes the right balance between base returns and performance incentives. Where the base return is set below what is warranted by the evidence (i.e. below c. 6.5% CPIH-real), the outperformance incentives from the ODI package must then offer greater uplift than the 50bps applied above, in order for the total return to at least achieve the 9–10% nominal return required by investors.

We note that **Ofgem could credibly set returns higher than these levels**, e.g. through the RfR and beta adjustments described, and by giving greater weight to the infrastructure fund cross-check. The key requirement with reference to investor surveys and engagement, however, is that any package must deliver the stated investor requirement of a 9–10% nominal return, in order to help ensure that the sector is investable.