Finance Question Responses (FQ)

August 2025

Contents

Chapter 1 Summary of response

#	Question	Agree / disagree	Summary of Response
FQ1	Do you agree with our approach to estimating efficient debt costs and calibrating the index?	Disagree	Overall, whilst some positive methodology changes have been made by Ofgem - the nominal allowance of 4.82%, excluding Additional borrowing costs (ABC), is significantly understated and should be 5.02% - an increase of 20bps. We welcome a specific gas sector cost of debt calibration, however, due to the lack of comparable data points in the Gas cohort the gas sector average cost of debt needs to be carefully calibrated. Cadent dominate the sector average and we believe this is distorting the results to the detriment of SGN's efficiently incurred financing costs. We propose improvements to the benchmarking process as follows: • Taking a simple average, rather than a debt weighted average, counteracts the weighting currently applied to Cadent and will increase the current calculated sector average by 6bps. • Use a GDN only average sector cost of debt, as NGT has less uncertainty around the impact of the Future of Gas due to its different role. This will increase the sector average by a further 9bps. • Correct Ofgem's 25bps assessment of gas premium by correctly adjusted for tenor, giving a gas premium of 45bps. This would add 5bps on to the allowed cost of debt allowance. We do not believe Ofgem's current sector benchmarking and gas premium assessments of GD3 forecast debt costs are robust and cannot possibly infer SGN's forecast financing costs are inefficient. Our proposed strengthening of the assessment will better reflect the sector and align more closely with SGN's efficiently incurred finance costs.
FQ2	Do you agree with our proposal to use a combination of iBoxx GBP A and BBB 10+ non-financial indices rather than the iBoxx GBP Utilities 10+?	Disagree	Whilst we appreciate that the calibration exercise applied to the chosen iBoxx index initially makes the choice of index somewhat academic, we do think that the iBoxx Utilities index should be used. This is because it better represents the energy sector than the more general iBoxx A/BBB 10+ non-financial indices as we go through GD3, protecting companies from any volatile movements in the more general non-financial indices that are not necessarily in the energy sectors' control.
FQ3	Do you consider our proposed notional ILD assumption to be appropriate?	Agree	We think the notional ILD assumption of 30% is broadly reflective of that for the gas sector.
FQ4	Do you agree with our approach to setting the	Disagree	Keeping additional borrowing costs (ABC's) of 25bps as per GD2 is unsustainable given current markets rates and increased risk for gas. This is particularly relevant for

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	additional cost of borrowing allowances?		liquidity and cost of carry costs where Ofgem have materially understated these by relying on backward looking data. We are proposing an additional borrowing cost allowance of 44bps.
FQ5	Do you agree with our proposed treatment of inflation with respect to the allowed return of debt?	Disagree	Ofgem raise that the OBR assume a long run wedge between CPIH and CPI of 0.4%, and that it will consider deflating the ILD proportion of the allowed cost of debt by 2.4%. We disagree with the possible approach for a number of reasons; • Outturn data indicates no persistent or material wedge, as acknowledged by Ofgem in the SSMD • Underlying parameters of the long run OBR forecast are challenging to estimate, with most OBR forecasts of productivity growth materially overshooting the resulting growth • The wedge estimate is still new and untested • OBR's 5 Year CPIH Forecast is a potential alternative forecast
FQ6	Do you agree with the removal of the infrequent issuer allowance?	Disagree	We disagree with the removal of the infrequent issuer allowance. Ofgem does not include infrequent issuer allowance as it considers this has been compensated by its estimate of the gas network premium (GNP) of 25bps; however, this assumption is incorrect. They have also disregarded evidence they used in GD2. We therefore believe an infrequent issuer premium of 6bps needs to be reinstated.
FQ7	Do you agree with our methodology for calculating the RFR?	Disagree	Private borrowers, even those with minimal credit risk, cannot borrow at the same rate as the government. Also government bond yields may fall below the return on a zero-beta asset because these bonds possess special features that create a price premium. There is extensive evidence supporting the inclusion of a convenience premium, including academic literature and recent regulatory precedents. It can be empirically shown that a large and positive convenience premium can be observed across the gilts yield curve, including at the 20-year investment horizon. And that the convenience premium has been present during periods of both calm and distressed financial markets. Ofgem's proposed RFR is 2.01% (CPIH-real), based on 20Y ILG. Including the convenience premium of 24 bps, estimated by **Oxera, leads to a RFR of 2.25% (CPIH-real).** KPMG's analysis shows there should also be an adjustment for the differing risk-free saving and borrowing rates, as well as the convenience yield (premium), which leads to an upward adjustment of at least 42bps to Ofgem's RFR.
FQ8	Do you agree with our methodology for calculating the inflation wedge?	Disagree	Ofgem raise that the OBR assume a long-run wedge between CPIH and CPI of 0.4% and that it would review whether an adjustment to the inflation assumption and inflation wedge is warranted. We disagree with the possible approach for a number of reasons;

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			• Outturn data indicates no persistent or material wedge, as acknowledged by Ofgem in the SSMD • Underlying parameters of the long run OBR forecast are challenging to estimate, with most OBR forecasts of productivity growth materially overshooting the resulting growth • The wedge estimate is still new and untested • OBR's 5 Year CPIH forecast is a potential alternative forecast
FQ9	Do you agree with our methodology change in calculating the ex-ante TMR?	Disagree	SGN welcome the changes to the ex-ante TMR methodology made in the DD. However, a couple of important issues still remain with Ofgem's TMR calculation. Firstly, in setting the TMR, Ofgem continued to place equal weight on ex ante and ex post approaches. We continue to consider that ex ante approaches are not particularly informative, and they are subject to a degree of subjective judgement about how the future will be different from the past. In addition, whilst the UKRN guidance suggests that ex ante evidence should be considered by regulators when setting the TMR, it does not recommend placing equal weight on ex ante and ex post approaches. Secondly, Ofgem continued its approach of not reflecting the higher interest rate environment in the estimation of the TMR. Ofgem's approach is inconsistent with regulatory precedents and does not support companies in retaining and attracting capital during RIIO-3, i.e. their investability. Also, an upward adjustment to reflect the current high-interest rate environment would be consistent with UKRN guidance, as it specifies that regulators should not consider the TMR to be fixed. Analysis of the historical evidence and current market conditions points towards **a TMR range of 7.00–7.50% (CPIH-real) for RIIO-3, but values higher than 7.50% could be required.**
FQ10	Do you agree with our methodology for estimating beta?	Disagree	We welcome that Ofgem recognises the increases in risks from RIIO GD2 to GD3, and that higher levels of risk exposure should be accompanied by a higher cost of equity. We also welcome the inclusion of European networks to try and address these changes and the emphasis on 10-year betas to reduce distortions caused by periods of high or low market volatility. However, we believe Ofgem should adjust the baseline comparator asset betas set to separately account for gas specific forward-looking risk, such as asset stranding and revenue recovery risk, as these will not be fully priced into historical betas (as set out in our response to FQ11).
FQ11	Do you agree with our proposed set of comparators which also incorporates selected European utility stocks?	Disagree	We consider that it is appropriate to derive a gas-specific asset beta range that is informed by; • quantitative estimates of the asset betas of European gas networks

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			• European regulatory precedents on GD and GT asset beta allowances • quantitative estimates of the asset betas of US gas networks. Oxera's analysis of this market and regulatory evidence underpins a truncation of Ofgem's 0.30–0.45 asset beta range, as they consider that the lower part of Ofgem's proposed asset beta range is not appropriate for the RIIO-GD/GT3 context; it neither adequately reflects the challenges that gas networks are expected to face during RIIO-3 nor addresses the low-beta anomaly for regulated utilities. They derive a gas-specific asset beta range of 0.40–0.44 that is more likely to adequately reflect gas-specific forward-looking risks in RIIO-G3. **We assess that a wider asset beta range of 0.375–0.45,** giving some weight to UK regulated utilities which are non-gas comparators, should be used to set the asset beta allowance for RIIO-GD3.
FQ12	Do you agree with the conclusions we have drawn from our chosen crosschecks?	Disagree	We welcome Ofgem introducing the concept of investability for RIIO-G3 given the significant challenges facing the gas sector. Cross checks of the CAPM Cost of Equity are a key consideration of investability and we strongly believe that a more substantial set of cross checks are needed to cross check the cost of equity and TMR. Ofgem have not appraised the merits of the cross checks previously submitted on the same basis as they have assessed the ones they propose in the DD. If they were to do this, they would; • place some reliance on Dividend Growth Model based TMR cross-checks, if they continue to assign weight to their MARs inference cross-check; • consider debt-based cross-checks such as hybrid bond cross-check when assessing the overall CoE, as the criticisms levied on the hybrid bond cross-check are present in regulators' own cross-checks and CAPM estimation. We have also commissioned Inference Analysis and Multi Factor Model cross-checks reports, in addition to Frontier's updated cross-check evidence report. These debt-based and CAPM alternative model approaches, respectively, reinforce the conclusions of Frontier's report that Ofgem's Step 1 point estimate of 6.04% is highly unlikely to satisfy investability criteria and, by contrast, **the top end of Ofgem's CAPM range (6.96%) and Oxera's RIIO GD3 CAPM point estimate (6.84%) have much greater overlap with the cross-check evidence.** By relying on a fuller set of information, Ofgem can come to a more informed view of market sentiment with respect to the allowed return, allowing them to set the CoE at an appropriate level which mitigates investability risks and protects customers.
FQ13	Do you agree with our treatment of risks to the	Disagree	[redacted]

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	ET and Gas sectors as non-systematic?		[redacted] Until there is a guarantee of RAV and cost recovery - gas networks will also face the non-systematic, asymmetric risk, of asset stranding and non-recovery of ongoing costs. Unless investors receive a guarantee of RAV and ongoing cost recovery there needs to be aiming up from the mid-point cost of equity to reflect asset stranding and cost recovery risk.
FQ14	Do you agree with our proposed dividend allowance policies for the notional gas and electricity companies?	Disagree	Ofgem's proposed dividend allowance policy for the notional gas company will send out a damaging message to equity investors. **There needs to be a notional dividend yield assumption closely aligned to the return *on* capital, i.e. the allowed cost of equity, as RAV is not expected to grow materially in RIIO-GD3.** Also, additional dividends should be applied to allow the accelerated return ***of*** capital to equity investors due to semi nominal WACC and accelerated depreciation policies, enabling the notional structure of 60% gearing to be maintained instead of all the extra cash generated by these regulatory policies solely paying off debt. As the cash surplus to be paid as dividends is structural and recurring, i.e. not temporary 'special dividends', these additional dividends should apply once gearing falls below 60%, not when it reaches a certain level (such as 55% in the published Draft Determination BPFM). Furthermore, in the BPFM once special dividends are triggered, and notional gearing is increased to 60%, gearing immediately drops the next year but not to 55%, leaving equity trapped in the notional company.
FQ15	Do you agree with our proposal not to apply the flat WACC approach?	Not applicable	We do not have a view on this question as we believe it is only applicable to the Electricity Transmission networks
FQ16	Do you agree that our proposed package for gas and electricity companies is investable?	Disagree	[redacted] Risks outlined in our submission across financing and Totex need to be addressed at source, surety of cost recovery needs to be explicitly noted and assumed dividend yields need to be

#	Question	Agree / disagree	Summary of Response
			aligned to the cost of equity which itself should be properly calibrated and checked against robust cross checks which we believe support Oxera's proposed range.
FQ17	Do you agree with our working assumption that there is risk symmetry within the aggregate balance of the whole price control?	Disagree	[redacted]
FQ18	Do you agree with our approach to assessing financeability?	Disagree	The financeability assessment of the Draft Determination should not be limited to the analysis of debt credit metrics in GD3 but also consider the implications of uncertainties around the long-term development of sector, and how this reflects on the current investment environment. As a result, Ofgem have not assessed the investability of the Draft Determination in the long term or indeed carried out robust risk / impacts assessments at all. Despite the best practice principle of transparency, Ofgem has not stated the basis upon which it has conducted its financeability assessment when it comes to the question of whether the RAV is recoverable. Ofgem have not carried out a thorough set of stress test scenarios. In order to do this, there needs to be a deep understanding of the risk drivers, and this has been brought out in the Cunliffe Report on Water. [redacted] Finally, the results of any financeability test needs to reflect the recent tightening of guidance by the rating agencies as a result of the policy changes made by Ofgem in the DD (primarily semi-nominal WACC and Accelerated Depreciation). Indications from rating agencies are that they are moving the thresholds up by at least one notch, many from day one of GD3.
FQ19	Do you agree with our proposal to adjust bucket	Not applicable	We do not have a view on this question as we believe this is a matter for ET and Ofgem.

#	Question	Agree / disagree	Summary of Response
	2 capitalisation rates from natural rates to 85% for all ET licensees to support financeability? Are there alternative measures that stakeholders consider more appropriate?		
FQ20	Do stakeholders have views or evidence on long-term financeability considerations, including the appropriateness of the proposed asset lives?	Disagree	[redacted] e have examined the long term financeability risks and in the detailed answer show evidence of longer term financeability concerns and believe mitigations are required to provide stakeholders with confidence the long-term risks will be addressed.
FQ21	Do you agree with our proposal to implement the Financial Resilience measures as laid out in our SSMD and the proposed methodologies set out above?	Disagree	We have a high level of financial resilience and take this very seriously. We have concerns that the measures taken by Ofgem are neither built on evidence nor are proportional. Decisions in these areas should be made following Ofgem's review of the financial ringfence later this year rather through this consultation.
FQ22	Do you agree with the proposed position that by including robust protections within the Price Control Financial Handbook, a tax forecasting penalty is not required?	Agree	We agree the protections such as the tax reconciliation process and tax trigger events mean a tax forecasting penalty is not required. Notwithstanding these important points, Ofgem are proposing a revenue forecasting penalty. Many of the variables impacting revenue also impact tax allowance, so there would be a significant risk of double counting any perceived forecasting errors if a tax forecasting penalty was implemented. Also, we do seek clarity on what the proposed PCFH updates, to emphasise the notional nature of the tax allowance inputs (PCFM variables), actually mean and what is driving them.
FQ23	Do you agree definitions for ANDt and TDNIt should be updated to reflect the principles outlined in paragraph 7.41?	Agree	We agree that the definitions for Adjusted Net Debt (AND_t) and Tax Deductible Net Interest Costs ($TDNI_t$) should be adjusted to reflect the principles outlined in para 7.41 of the DD Finance annex.
FQ24	What are your views on our proposal to accelerate depreciation for new assets only in GD and is there any further evidence you would like us to consider before we reach a final decision?	Disagree	In order for the price control to be both financeable and investible, investors must have both a fair return on the RAV and surety of recovery of investments they continue to make and have already made. This is acknowledged in the recent government Midstream Update in relation to Gas where the we believe the government implies that to continue to stimulate and support the necessary investment in the sector investors need confidence that they will get a fair return on their investment, including money already spent on the network Ofgem has proposed the introduction of Accelerated Depreciation for new assets in GD3 in order to reduce the risks of Asset Stranding. For the reasons set out in our Business Plan, and again in this response, Accelerated Depreciation cannot in itself address the risk of stranding. As a result, the proposal by Ofgem fails to have the stated

#	Question	Agree / disagree	Summary of Response
			effect set out. Notwithstanding this fact, where accelerated depreciation does form part of a wider solution to cost recovery and financeability, we believe our proposed trigger mechanism is superior to option 4 and allows more optionality and is ultimately more in consumers interest. [redacted]
FQ25	Do you agree with our proposal to maintain the existing depreciation policy for gas transmission assets?	Not applicable	We believe this is an issue for GT and Ofgem and we have set our views for GD in FQ24
FQ26	Do you agree with our proposal to maintain the existing depreciation policy for electricity transmission assets?	Not applicable	We believe this is an issue for GT and Ofgem and we have set our views for GD in FQ24
FQ27	Do you agree with our proposals for the RAM thresholds and adjustment rates?	Agree	We believe RAM thresholds and adjustment rates should be one of the final calibration adjustments that are made to the FD package. However, we do believe the current threshold of 300bps seems significantly beyond what we would consider 'extreme'.
FQ28	Do you agree with our proposal to include programmes such as ASTI within RAMs?	Neither agree nor disagree	This is an issue for ET and Ofgem
FQ29	Do you agree with our proposals for RAV Indexation?	Agree	We agree that the SSMD proposed RIIO-3 RAV indexation methodology, which reflects the adoption of a nominal allowance for fixed rate debt in line with the notional capital structure, requires a modification to be made to the final year of RIIO-2 and first year of RIIO-3.
FQ30	Is there any additional evidence we should consider to improve our setting of regulatory capitalisation rates?	Agree	Bucket one capitalisation rates should initially be set in line with the natural capitalisation rate and maintained throughout GD3 at an outturn capitalisation rate, to avoid significant forecast cashflow and credit rating impacts. For reopeners and volume drivers (bucket 2), this risk can be an even more significant issue, and thus we recommend the capitalisation rates for bucket 2 are set initially using forecast totex spend but are then adjusted for outturn capitalisation rates on a case-by-case basis.

#	Question	Agree / disagree	Summary of Response
			In order for capitalisation rates to be set accurately at the start of GD3, disaggregation of Totex allowances needs to be more robust, otherwise risks identified above could materialise.
FQ31	Do you agree with the approach to maintain the RIIO-2 treatment for disposal of assets?	Agree with caveat	We are supportive of continuing current treatment for non-operational assets with a relatively immaterial value. Larger scale disposals / transfer of network assets should be dealt with on a case-by-case basis, for example, transfer of assets to the hydrogen business, where valuation methodologies need to be agreed.
FQ32	Do you agree with the proposal for the ex ante base revenue definition we will use to calculate the re-opener materiality thresholds?	Disagree	In principle, we don't agree with a materiality threshold being applied to re-openers, as we don't think they are required.
FQ33	Do you agree with the proposal for how we will set ODI caps and collars at final determinations that are fixed for the duration of RIIO-3?	Agree with caveat	In principle, we agree with the proposed approach, but the precise calibrations of the ODI caps and collars are commented within the ODI-F responses in our GDN specific response document.
FQ34	Do you agree with the proposal to move to using nominal WACC as the single uniform TVOM?	Disagree	Our position has not changed from that adopted by Ofgem for RIIO-GD2/T2, i.e. that WACC should be applied to revisions to PCFM inputs whilst a Cost of Debt figure should be applied to k correction (under/over recovery errors).
FQ35	Do you agree with the proposed base revenue forecasting penalty mechanism?	Disagree	Whilst we understand Ofgem's desire to improve accuracy within network forecasts and support its broader aim of aligning sector licences where appropriate, we do not believe that the proposed base revenue forecasting penalty mechanism is appropriate for the Gas Distribution sector.
FQ36	Do you agree that the thresholds have been set appropriately?	Disagree	We welcome Ofgem's decision to increase the threshold from 6% to 8%. This adjustment reflects a more appropriate tolerance for forecast variants. However, we continue to believe that any threshold, regardless of level, remains inappropriate where applied to elements outside of network control.
Impact Assessment Questions			
IAQ1	Do you agree with our approach to assessing the economic impacts of RIIO-3?	Disagree	We do not agree with the approach to assessing the economic impacts of RIIO-3. Principally, this is because the Impact Assessment of policy decisions carried out by Ofgem represents a clear statutory requirement that has not been fulfilled.
IAQ2	What are your views on the appropriate approach to the evaluation of the economic impact of RIIO-3?	Neither agree nor disagree	We are concerned that a rigorous counterfactual has not been defined. Rather the concept is a roll forward of RIIO-2 rather than defining an appropriate baseline comparator.

#	Question	Agree / disagree	Summary of Response
IAQ3	Do you agree with our approach to modelling the bill impacts of RIIO-3? Please provide any additional effects or alternative measures that you think would be appropriate	Disagree	On the basis of our answer in IAQ2 regarding the lack of a rigorous counterfactual we cannot then have confidence in the bill impacts determined.

Chapter 2 Allowed Return on Debt

2.1 Summary of SGN's Proposal

1 SGN are proposing a cost of debt allowance of 5.52% compared to a proposed allowance by Ofgem in the draft determination of 5.07%[1]. [redacted] ur proposal is summarised below:

Table 1 1: Summary of proposed cost of debt allowances

	Draft Determination	SGN Proposal	Evidence of movement
Embedded debt	4.28%	4.30%	Based on inaccuracies in sector benchmarking (See FQ1)
New debt	6.06%	6.07%	
Gas premium	0.25%	0.45%	NERA market analysis (see FQ1)
Total new debt	6.31%	6.52%	
Weighting of new debt	23%	28%	GDN average
Allowed CoD	4.76%	4.93%	
Headroom	0.06%	0.09%	
Total Cost of Debt (pre-ABC)	**4.82%**	**5.02%**	
Additional borrowing cost	0.25%	0.44%	NERA analysis of ABC's (see FQ4)
Infrequent issuer premium	0.00%	0.06%	See FQ6
Overall allowed cost of debt (nominal company)	**5.07%**	**5.52%**	

Source: SGN analysis

2 We believe the allowance should increase by 45bps and the justification and evidence for this change is covered in the following responses in the section:

- FQ1: Improving the sector benchmarking approach taken by Ofgem by applying a simple GDN average as opposed to a debt weighted average which puts too much emphasis on Cadent (15bps);
- FQ1: Appropriately tenor adjusting the gas premium on new debt (5bps);
- FQ4: Applying the correct level of additional borrowing cost allowances, primarily cost of carry (19bps); and
- FQ6: Reinstatement of the infrequent issuer allowance as per RIIO2 which has been erroneously removed (6bps).

[1] Ofgem RIIO-3 Draft Determinations – Finance Annex, table 3

Note – NERA have been commissioned by FEN (Future Energy Networks) and have produced the following reports which have provided the evidence base to determine the appropriate cost of debt allowance that SGN propose;

- GDNs & NGT Cost of Debt at RIIO-3 (SGN-GD3-DD-ECR-17)
- Gas Network Premium (GNP) and Additional Cost of Borrowing (ACB) for GD/GT3 (SGN-GD3-DD-ECR-18)

3 NERA have calibrated what the allowed cost of debt should be based on its analysis and evidence and also applying a 1% high-interest rate scenario (as per Ofgem's headroom calibration) but also a 2% high-interest rate scenario. This shows, for GDN only simple average, the allowed cost of debt would be:

- High-Interest Rate Scenario (Flat rate + 1%) 5.52% (5.49% applying a weighted infrequent issuer allowance)
- High-Interest Rate Scenario (Flat rate + 2%) 5.61% (5.58% applying a weighted infrequent issuer allowance)

4 Ofgem's high/low-interest scenarios of +/-1% do not sufficiently account for potential downside scenarios. Over RIIO-2, the actual outturn iBoxx rates are +2.5% higher than the forecast, suggesting +1% is insufficient to capture interest rate risk.[2] In addition, a +/- 2% is better supported by forward curve forecasts for iBoxx. Hence, a higher interest rate sensitivity of +2% could be considered more appropriate for calibrating the sector CoD headroom so our proposal based on the 1% interest rate sensitivity could be considered conservative.

2.1.1 Estimating Efficient Debt Costs

FQ1. Do you agree with our approach to estimating efficient debt costs and calibrating the index?

5 SGN agrees Ofgem has made some positive methodology changes. However, the nominal allowance of 4.82%, excluding Additional borrowing costs (ABC) and Infrequent Issuer Allowance, is significantly understated and should be in excess of 5% - an increase of 20bps.

6 In RIIO2, Ofgem has a cohort of Gas Distribution, Gas Transmission and Electricity Transmission companies. In RIIO3, Ofgem have correctly in our opinion removed Electricity Transmission from this cohort to allow the Distribution and Transmission sectors to be examined separately due to the differing cost of debt that is clearly emerging.

7 However, the Gas cohort now has challenges in coming up with an accurate sector average due to only five data points, of which Cadent has a very large weighting and is distorting the sector average. In reality, Cadent's financing is largely setting the 'efficient' sector average. [redacted] Indeed, Ofgem recognised such issues in RIIO-2, in paras 2.41-2.43 of its DD Finance Annex[3];

'We have three main options for pooling expected debt costs for calibrating debt allowances:

- *Consider each sector individually*
- *Consider the industry as a whole, including Electricity Distribution (ED)*
- *Consider a combination of sectors, as appropriate'*

'We have considered the merits and challenges of each of these options. We have concerns that considering each sector individually could lead to skewed results because some sectors include only a small number of networks and could be largely or entirely impacted by individual network financing decisions and strategies (rather than anything intrinsic to those sectors).'

[2] The actual outturn iBoxx Utilities index yield over the first 4 years of RIIO-2, i.e. 2022 - 2025, is on average 2.5% higher than the iBoxx Utilities forecast made by Ofgem at RIIO-2 FD. *Source: (1) Ofgem (2020), RIIO-2 Final determination–WACC Allowance Model, Tab: Output Tables, (2) Ofgem (2025), RIIO GDT3 WACC Rates Model Draft Determinations, Tab: Key Outputs*
[3] Ofgem RIIO-2 Draft Determinations – Finance Annex, paras 2.41 - 2.43

'We consider there to be merits to broadening the pool to include more networks and a greater volume of debt raised. This could allow us to gain a picture that could be considered more representative of a notional efficient operator.'

8 It is also worth noting that in paras 2.36-2.37, of the RIIO-2 DD Finance Annex, Ofgem considered whether it should remove Cadent from its calibration 'debt pool' due to the issues caused by the refinancing of its debt in 2016, due to the NG sale of its 4 GDNs. Ofgem decided not to remove Cadent, instead adjusting the debt pool costs for the costs of refinancing, due to the impact removing Cadent's debt costs would have on the size of the debt pool. Whilst we agree with the retention of this Cadent adjustment - now the electricity transmission companies have been removed, the inclusion of Cadent is dominating the gas sector debt pool due to its size (it has c. 50% of the GDN sector RAV) and the debt weighted benchmarking approach needs to be revisited.

9 Analysis carried out by NERA, on p6 of its report GDNs & NGT Cost of Debt at RIIO-3 (SGN-GD3-DD-ECR-17) shows that when a simple company average is adopted (20% weighting to Cadent, SGN, WWU, NGN and NGT), the sector average increases by **6bps.** This needs to be adjusted for to help counteract the weighting currently applied to Cadent.

10 Additionally, the inclusion of National Gas Transmission with the GDNs causes the average sector cost of debt to decrease, we believe due to the fact NGT has less uncertainty around the impact of the Future of Gas due to its different role. Therefore, we think a sector average based on a simple average of the GDN's only (25% to each company) is more robust. Page 6 of NERA's report shows this, together with the additional required headroom, will further increase the gas sector average by **9bps.**

11 Making these adjustments of **15bps** will largely address the current sector gap to SGN (providing the infrequent issuer cost is allowed for separately – see FQ4). Aligning closer to SGN's cost of debt for GD3, given we do not believe Ofgem's current benchmarking can conclude SGN has issued debt inefficiently (we believe it has been issued efficiently), is appropriate and based on a more robust benchmarking methodology.

12 NERA, in section 2 of its report Gas Network Premium (GNP) and Additional Cost of Borrowing (ACB) for GD/GT3 (SGN-GD3-DD-ECR-18), estimate the gas premium on new debt is 45bps above the benchmark average of the iBoxx A and iBoxx BBB non-financial 10+ corporate index. This premium reflects two elements;

- Gas network premium (GNP) – the premium required by gas network debtholders to compensate them for bearing the risks around the future role of gas networks
- New issue premium (NIP) – the cost of incentivising investors to participate in the primary market relative to the secondary traded market (not specific to gas network debts). In NERA's previous study for ENA, they had estimated market-wide NIP of 15bps[4]

13 This compares to the Ofgem's proposed 25bps benchmark adjustment to the A/BBB iBoxx index. NERA's analysis, in section 2 of its report, shows Ofgem's have understated their estimate due to two factors:

- Firstly, Ofgem has used issue date data instead of pricing date data for 3 bonds in its sample, yet pricing date for all others. Consistently using pricing date, NERA estimate a GNP of 31-32 bps or 32-35 bps, if a further 2 bonds are excluded with 2 short tenor bonds - which will not reflect GNP over RIIO-3.
- Secondly, controlling for differences in tenor between bond and A/BBB iBoxx - as sample gas network bonds have a shorter tenor relative to the tenor of the A/BBB iBoxx. This is done drawing on Ofgem's approach at RIIO-2 by calculating the relative spreads of the gas network debt and iBoxx index, by deducting the respective tenor-matching nominal gilt yield from network bonds and iBoxx yields. Controlling for tenor would also be consistent with the way the cost of capital is set more broadly to give consistency of investment horizons in cost of equity and the iBoxx index. Also, gas networks choice of debt tenors is not discretionary given the reluctance of investors to invest much beyond 10 years. P11 of the report shows that, when controlling for tenor, calculating the relative spread at issuance gives a GNP+NIP of 44-46bps.

14 Therefore, a benchmark adjustment of c. 45bps is required instead of 25bps, resulting in an overall cost of debt allowance increase of **5bps.**

[4] NERA (2024), Additional Cost of Borrowing for the RIIO-3 Price Control, p.19.

15 There also needs to be an ex post true up of the allowed gas premium, due to the uncertainty of how this premium could evolve over the next 5 years. Alternatively, scenarios of how the gas premium could evolve should be included in the calibration analysis, along with Totex and interest rates scenarios, and thus accounted for in the headroom for the gas sector (which we note currently is significantly below the 39bps afforded to the Electricity Transmission sector).

2.1.2 Use of iBoxx indices

FQ2. Do you agree with our proposal to use a combination of iBoxx GBP A and BBB 10+ non-financial indices rather than the iBoxx GBP Utilities 10+?

16 Whilst we appreciate that the calibration exercise applied to the chosen iBoxx index initially makes the choice of index somewhat academic, we do think that the iBoxx Utilities index should be used. This is because it better represents the energy sector than the more general iBoxx A/BBB 10+ non-financial indices as we go through GD3, protecting companies from any volatile movements in the more general non-financial indices that may not necessarily be in the energy sectors' control.

2.1.3 Indexed Linked Debt Assumptions

FQ3. Do you consider our proposed notional ILD assumption to be appropriate?

17 We think the notional ILD assumption of 30% is broadly reflective **of that for the gas sector.**

2.1.4 Additional Borrowing Costs

FQ4. Do you agree with our approach to setting the additional cost of borrowing allowances?

18 SGN, along with other FEN members, commissioned NERA to examine Ofgem's proposals in the report Gas Network Premium (GNP) and Additional Cost of Borrowing (ACB) for GD/GT3 (SGN-GD3-DD-ECR-18) and to recommend what it considered to be an appropriate allowance based on the evidence available. This response addresses the Additional Cost of Borrowing (ACB) element of this report.

19 We believe Ofgem's DD proposal of holding ACBs flat at the GD2 level of 25bps, and the removal of the infrequent issuer allowance for Scotland, is not sustainable given interest rate changes in the market and the risk profile for Gas **which is driving financing costs up and tenors shorter.**

20 NERA **estimate the ACB's should be in the range of 43bps – 45bps plus an infrequent issuer premium of 3.5-9bps (See FQ6). This is summarised below:**

Table 2 2: Summary of additional borrowing cost proposal

Units: bps p.a.	NERA	Ofgem	NERA	
	(March 2024 GDNs)	RIIO3 DD	(Aug 2025, exc. Gas network premium LOW)	(Aug 2025, exc. Gas network premium HIGH)
Transaction costs	8.5	7	8	8
Liquidity cost and cost of carry	13+12-27 (19)	15	5+26	5+26
CPIH premium	18-23 (21)	3	3	6
Additional cost of borrowing	**57-77 (67)**	**25**	**43**	**45**
Small company/infrequent issuer	10-18 (14)	0	3.5	9

Total	**67-95 (81)**	**25**	**46.5**	**54**

Source: NERA analysis

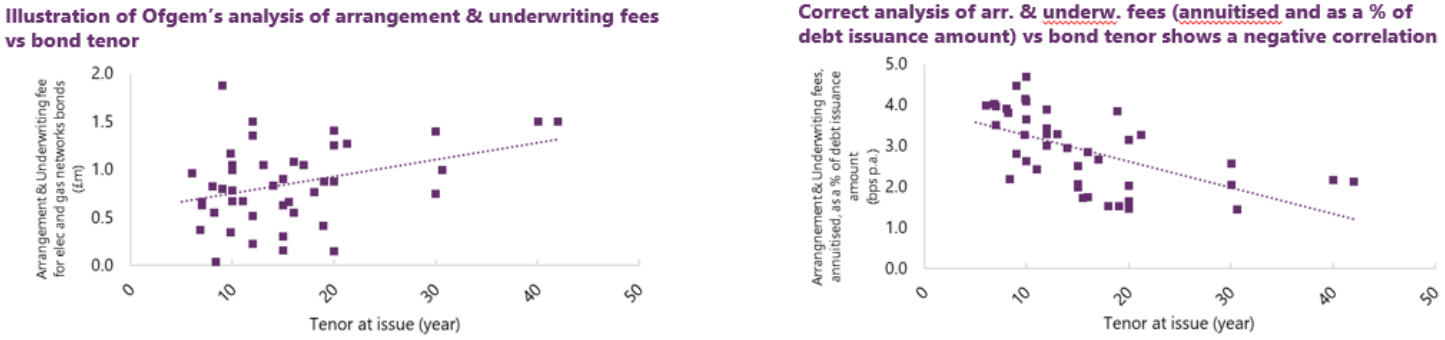
21 The table above highlights the differences between NERA and Ofgem which is primarily driven by the assessment of liquidity requirement and cost of carry which have been materially understated by Ofgem.

22 Further details on each item as follows:

Transaction Costs (8bps) – section 3.1 of NERA's report

23 NERA conclude that Ofgem is wrong that shorter-tenor bonds tend to incur lower arrangement & underwriting fees. When the cost is correctly expressed on an annuitized basis and as a % of debt issuance, the corresponding cost is higher as shown below:

Figure 1: NERA's assessment of transaction costs.



24 NERA's analysis of gas transaction costs shows a transaction cost of 8 bps for shorter tenor debt which is marginally higher than Ofgem's proposal.

Liquidity (5bps) and Cost of Carry (26bps) – section 3.2 of NERA's report

25 Ofgem's RIIO-3 liquidity allowance has decreased from 4 bps to 2bps. However, Ofgem does not allow for cost of draw-down and understates the size of rolling credit facilities (RCF). NERA's report highlights that, in practice, companies on average draw 3% facilities to fund working capital requirement/operational needs and maintain an RCF of 14.6% of debt – higher than 10% assumed by Ofgem. Ofgem have also not accounted for RCF set up costs. NERA propose a liquidity allowance of 5bps.

26 Ofgem estimates the cost of carry using a backward-looking actual analysis. It estimates that actual networks held cash equal to 7.7% of debt over the past two years. It estimates a cost of holding cash of 1.70% based on the 5Y average of outturn spreads between iBoxx and 3m cash deposit rate plus a gas premium of 25bps. It has multiplied its 7.7% cash assumption by its 1.70% cost of holding cash to derive a cost of carry of 13bps for GDNs.

27 NERA has refined the Ofgem cost of holding cash to ensure that it is forward looking for GD3. The NERA cost of holding cash is iBoxx + 45bps gas premium less 3m SONIA. The 1m March 2025 outturn iBoxx rates are combined with forward SONIA rates to reflect that SONIA is a one-day rate whereas iBoxx contains 20Y of future rate expectations. This gives a cost of holding cash of 2.59% and is consistent with the approach set out elsewhere in the Ofgem WACC rates model.

28 Multiplying Ofgem's 7.7% cash assumption with the NERA cost of holding cash of 2.59% gives a cost of carry of 20bps.

29 However, this understates the required cost of carry for GD3 because an approach based on historical levels of cash is inherently backward looking and does not capture forward looking pressures which could increase required levels of liquidity.

30 Our analysis of forward looking cost of carry corroborates that the 20bps based on historical cash held by networks under-states the required cost of carry. The key drivers of higher cost of carry across GD3 are as follows:

- FRS 102 requires management to assess whether a company is a going concern and to comment on this in its financial statements. The FRC has recently issued new guidance that "the minimum period for the going concern assessment does not mean that the outlook should be limited to 12 months. A longer assessment period could be more appropriate, especially if significant events or conditions (such as large debt repayments, debt covenant tests, significant capital commitments or expiry dates for key contracts or licences) are identified beyond that minimum period that may cast significant doubt upon the continuing use of the going concern basis of accounting". Requirements for demonstrating going concern are becoming more onerous, with longer assessment periods being evaluated by auditors. This is likely to increase cost of carry going forwards.
- Moreover, companies are required by licence to certify that they have sufficient liquidity to cover net cash outflows for the next 12m. Ofgem is proposing that companies, in addition to certifying that they have access to 12m liquidity, present a forward plan for ensuring sufficient liquidity is available for the full price control period (or a minimum of 3Y). This could further increase the length of liquidity runway that gas networks need to maintain.
- Debt investors perceive there is higher credit risk in gas compared to other regulated sectors: S&P stated that it no longer views GDNs "as operating at the lower end of the utility risk spectrum" and Moody's stated that energy transition uncertainty increases business risk for gas networks compared to electricity networks. This means there is a higher risk that bond markets are unavailable to gas networks at the point a need crystallises, thus gas networks may need a longer liquidity runway.
- Gas networks' financing requirements are also increasing as they are not able to issue at longer tenors – which in turn increases cost of carry on a forward looking basis.
- Our DD response highlights significant under-estimation of capex and repex, including required workloads across GD3. These additional costs need to be captured in projected cashflows and increase liquidity requirements.

31 In summary, NERA's cost of carry and liquidity estimate vs Ofgem's is as follows:

Table 3: NERA cost of carry and liquidity estimates

Parameter	Ofgem RIIO-3 GD/T	NERA' Estimate for RIIO-3
Cash assumption (% debt) [A]	7.7%	10%
iBoxx-cash rate spread [B]	1.70%	2.59%
Cost of carry allowance [C=A*B]	**13bps**	**26bps**
RCF size assumption (% debt) [D]	10%	14.6%
RCF drawn-down assumption [E]	-	3.1%
Commitment fees [F]	16bps	16bps
Commitment fees for undrawn facilities [G]	2bps	2bps
Interest on drawn liquidity + utilisation fee [H]	-	2bps
Upfront arrangement, legal, agency fees [I]	-	1bps
Liquidity allowance [J=G+H+I]	**2bps**	**5bps**
Total Liquidity + Cost of Carry [C+J]	**15bps**	**31bps**

32 The above table shows the breakdown of what is driving the 16bps increase in liquidity and cost of carry allowance requirements.

CPIH Premium (3-6bps) - section 3.3 of NERA's report

33 Ofgem has proposed a CPIH basis risk mitigation allowance of 3bps, based solely on companies incurring RPI-CPI swap costs of 15bps, applicable to both new debt and embedded debt. It has not deemed CPI-CPIH basis risk as relevant.

34 We believe Ofgem is wrong to disallow the cost of issuing synthetic CPI-linkers, particularly given that the majority of the gas sector currently employs this approach, and there are practical limits to issuing RPI ILD.

35 Overall, NERA estimate a CPI/H basis risk mitigation allowance of 3-6 bps, based on:

- lower bound on RPI-CPI swap cost of 15 bps; upper bound cost of 30-50bps for new CPI-ILD issuance,
- 15bps of cost for managing RPI/CPI basis risk of embedded RPI ILD

36 **Overall, we recommend an additional borrowing cost allowance of 42bps – 45bps compared to Ofgem's 25bps.**

2.1.5 Treatment of Inflation

FQ5. Do you agree with our proposed treatment of inflation with respect to the allowed return of debt?

37 SGN believe the inflation leverage effect would have been better mitigated by deflating**,** and reflating, the fixed rate debt proportion of the cost of debt allowance by a fixed inflation assumption of 2.0%, as this would have avoided the customer bill impact of the semi nominal WACC. However, we note Ofgem's decision in the draft determination.

38 Ofgem raise (in para 2.49 of the DD Finance Annex[5]) that the OBR assume a long run wedge between CPIH and CPI of 0.4%, implying the 2% inflation assumption, based on the Bank of England's CPI target, may understate long-term CPIH expectations. It states it will consider, for FDs, adjusting its inflation assumption used to calculate real index linked debt and the CPIH basis risk allowance, to reflect the OBR's long run wedge. We have a number of objections to this possible approach;

Outturn data indicates no persistent or material wedge

39 As set out in section 2.2.1 of Oxera's report RIIO-GD&GT3 cost of equity and debt premium cross-check (SGN-GD3-DD-ECR-19) historical evidence does not support the introduction of a wedge between CPIH and CPI in regulatory modelling. The differential between CPIH and CPI has been highly unstable over time, frequently fluctuating above and below zero, with extended periods in which CPI has exceeded CPIH. This volatility demonstrates that the relationship between the two measures lacks the consistency required to justify the application of a fixed wedge in long-term regulatory assumptions. Furthermore, the analysis shows that, over the time horizons typically considered in regulatory decisions, the average wedge is both small and negative. Over the past ten years, the average difference between CPIH and CPI is -0.04%, while over the past 20 years it is -0.12%. These results indicate that CPIH has not exhibited a persistent or material premium over CPI, rather that the data reflects an unstable relationship between the two indices over time.

40 Using a 2.4% long term CPIH assumption would introduce a significant risk of overstating the inflation assumption, resulting in insufficient cost of debt allowance on 30% of the debt book. This would be an undue risk of underfunding the cost of debt, not only in this context but also given the overall investability concerns for the sector, which can be avoided.

41 As also highlighted in section 2.2.1 of Oxera's report, the conclusion above that CPIH has not exhibited a persistent or material premium over CPI - rather that the data reflects an unstable relationship between the two indices over time - is consistent with Ofgem's own view as articulated in the RIIO-3 SSMD;

42 *'Historical CPI and CPIH rates of inflation have typically been very close on average: between June 2013 and June 2023 (inclusive), average monthly CPIH and CPI inflation varied by only 14bps. This approach has also been adopted by Ofwat and by the CMA.* [6]

43 In this context, the recent suggestion that a CPI–CPIH wedge may now warrant consideration represents a significant departure from an established position and the weight of historical evidence, without a reasonable evidence base to support this change

[5] Ofgem RIIO-3 Draft Determinations – Finance Annex, para 2.49
[6] Ofgem (2024), 'RIIO-3 Sector Specific Methodology Decision – Finance Annex', para. 3.56

Underlying Parameters of the Long Run OBR Forecast are Challenging to Estimate

44 The most significant difference between CPIH and CPI is the former includes Owner Occupiers Housing Costs, as shown in the following table along with a decomposition of OBR's long term 2.4% CPIH estimate;

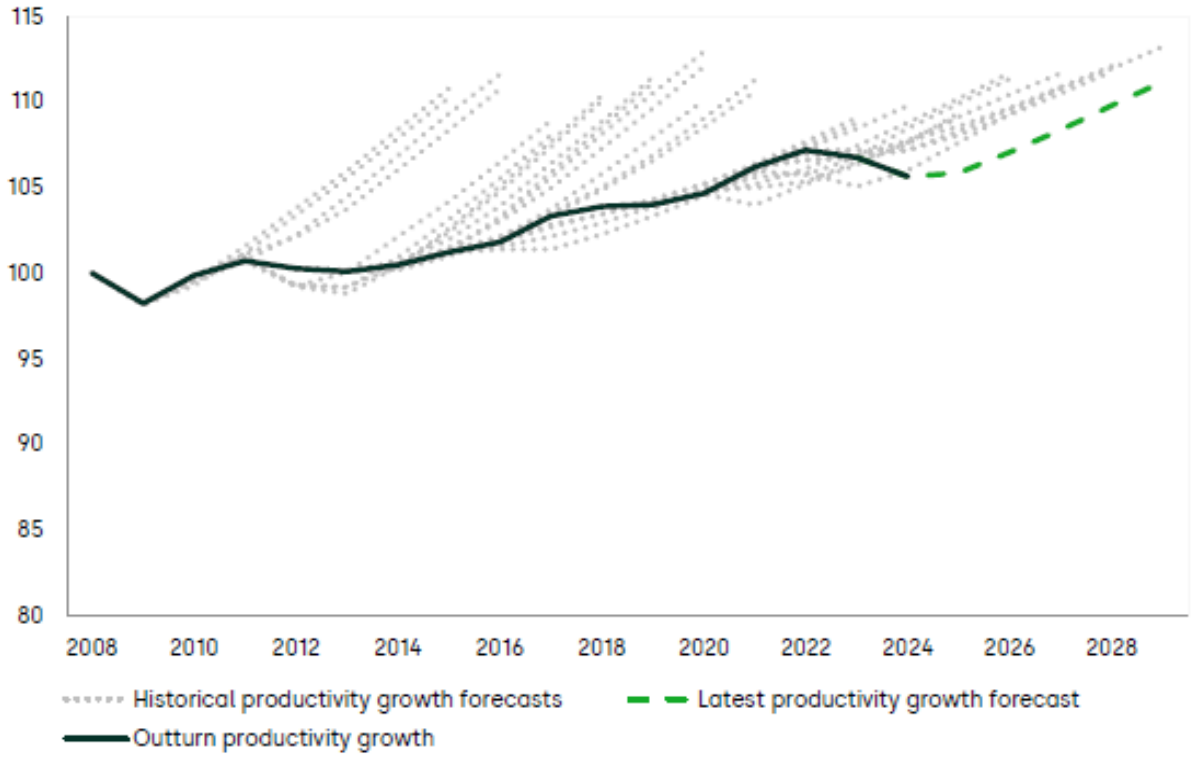
Table 4: CPIH basket breakdown

CPIH basket breakdown	Weight	Assumed Value
CPI	81%	2.0%
Council tax	3%	4.8%
Owner Occupied Housing Costs (OOH)	16%	3.8%
CPIH		**2.4%**

45 As set out in section 2.2.2 of Oxera's report – the OBR forecasts long-term OOH costs by growing these in line with CPI actual private rental inflation, which in the long run is assumed to grow in line with average nominal earnings. In turn, the main determinants of average nominal earnings growth, and as such the CPIH–CPI wedge, are assumed to be the sum of GDP deflator and productivity growth, which are assumed to grow at 2.3% and 1.5% respectively.

46 Firstly, it is unclear why the GDP deflator is a more appropriate index to use when forecasting nominal earnings growth than CPI itself, which is projected to grow at 2.0%. Secondly, it is challenging to forecast productivity growth accurately, with most OBR forecasts of productivity growth materially overshooting the outturn growth, as illustrated in Figure 2.4 of Oxera's report below;

Figure 2: Productivity growth forecasts and outturn productivity growth



47 Section 2.2.2. of Oxera's report goes on to highlight the following remark from Professor David Miles—a member of the Budget Responsibility Committee – to the Parliamentary Treasury committee on the gaps between forecasts and outturn results:[7]

> *'Productivity is really difficult to forecast. Fifteen years ago, people thought that the level of GDP in the UK now would be 30% higher than it is. That has been absolutely transformational. It has been catastrophically bad for a long period of time, and I do not think anybody—any economist—really saw that coming. It is a really difficult thing to predict.'*

48 Finally, Oxera set out that recent Bank of England publications have highlighted that accurately forecasting inflation has become more challenging in recent years.

The Wedge Estimate is Still New and Untested

49 As set out in section 2.2.2 of Oxera's report the OBR only published a first version of its CPIH forecast in the October 2024 economic outlook, explicitly noting that it will 'keep our estimates and forecast methodology under review'. Whilst the OBR has additionally published supplementary forecast information in June 2025, these calculations do not address any of the limitations in their long term CPIH forecast identified above.

OBR's 5 Year CPIH Forecast is a Potential Alternative Forecast

50 We agree with Ofgem's SSMD position that the Bank of England long-term CPI assumption of 2.0% is still the best long-term assumption for the index linked debt assumed portion of total debt[8]. Given the issues identified with the OBR's long-term forecast approach above, we do not think a 2.4% CPIH estimate is appropriate for RIIO-3.

51 We note the RIIO-2 methodology was to use a year-5 medium term OBR CPI forecast as a proxy for CPIH. We think this is still a reasonable approach, which would also support 2.0% (the year-5 OBR CPI forecast is currently 2.0%). Furthermore, to the extent that OBR's medium term forecast now includes CPIH, we observe that the year 5 value is currently 2.09%. However, given this is not materially higher than the DD assumption of 2.0% and historically there has not been a material difference, we would recommend no change from using the Bank of England CPI inflation target of 2.0%

52 Therefore, as detailed above, introducing a CPI–CPIH wedge into the regulatory framework would introduce unnecessary risk, and is not supported by robust and tested evidence of a predictable level of the wedge, at this stage. There is material uncertainty surrounding the forecasting basis and the potential for significant future revisions of the forecast methodology.

2.1.6 Infrequent Issuer Allowance

FQ6. Do you agree with the removal of the infrequent issuer allowance?

53 Ofgem does not include an infrequent issuer allowance as it considers this has been compensated by its estimate of the gas network premium (GNP) of 25bps, since the infrequent issuers' bonds accounts for a large portion of GNP data sample.

54 However, 43% of the debt sample used by Ofgem to estimate GNP are not issued by infrequent issuers. In the RIIO-3 DD, Ofgem identifies four infrequent issuers with expected average annual issuance lower than minimum efficient size of £250 million. These are: SGN Scotland, SGN Southern, WWU and NGN. NERA's modelling, in section 3.4 of its report Gas Network Premium (GNP) and Additional Cost of Borrowing (ACB) for GD/GT3 (SGN-GD3-DD-ECR-18) identifies the same set of infrequent issuers as Ofgem.

55 At GD2/T2, Ofgem allowed 6 bps p.a. infrequent issuer premium based on evidence from constant maturity swaps (CMS). The CMS provides a basis for estimating infrequent issuer premium that is unrelated to the gas network premium, and therefore not compensated through the main CoD allowance. Primary market evidence, based on relative spread at issue of a wide sample of energy network debt, shows 21-24 bps illiquidity premium for sub-benchmark sized debt issues relative to issues at and above £250m.

[7] UK Parliament (2024), 'Oral evidence: Economic and fiscal outlook, HC 454', Treasury Committee, 17 April.
[8] Ofgem (2024), RIIO3 Sector Specific Methodology Decision – Finance Annex, para 2.128

56 Taking these two pieces of evidence together NERA estimate an infrequent issuer premium of between 3.5 bps based on the illiquidity premium of sub-benchmark issues, and 9 bps based on CMS, with a mid-point of 6bps.

Chapter 3 Allowed return on equity

57 A summary of our cost of equity proposal is as follows:

Table 55: SGN proposed WACC in Final Determination

	DD Proposal	SGN Proposal	Evidence for Movement
RFR	*2.01%*	*2.25%*	Oxera / KPMG analysis for convenience yield (See FQ7 Finance Annex)
Debt Beta	*0.075*	*0.075*	
Asset Beta	*0.375*	*0.413*	Inclusion of US betas in high end of range and Euro reg precedents (See FQ10, FQ11 Finance Annex)
Notional Gearing	*60%*	*60%*	
Equity Beta	*0.83*	*0.92*	
TMR	*6.90%*	*7.25%*	More weight on historical ex-post and reflection of current high interest rates (See FQ9 Finance Annex)
Cost of Equity (post tax)	*6.04%*	*6.84%*	FEN Oxera report
Aiming Up	*0.0%*		Frontier Cross Checks and KPMG Balance of Risk Analysis (See FQ12, FQ16 Finance Annex)
Cost of Equity inc Aiming Up (Real)	***6.04%***	***6.84%***	

58 Our proposal is based on the Oxera proposed RIIO-GD/GT3 CoE range of 6.17%–7.57%, with a mid-point of 6.84%, evidenced in their report RIIO-GD&GT3 cost of equity and debt premium cross-check (SGN-GD3-DD-ECR-19). We welcome the positive movement by Ofgem across the parameters in the DD, from the SSMD, and note the top end of Ofgem's range is similar to Oxera's midpoint CoE and has greater overlap with cross check evidence. We have examined what is causing the remaining parameter differences between Ofgem's and Oxera's midpoint estimate, and these are largely down to:

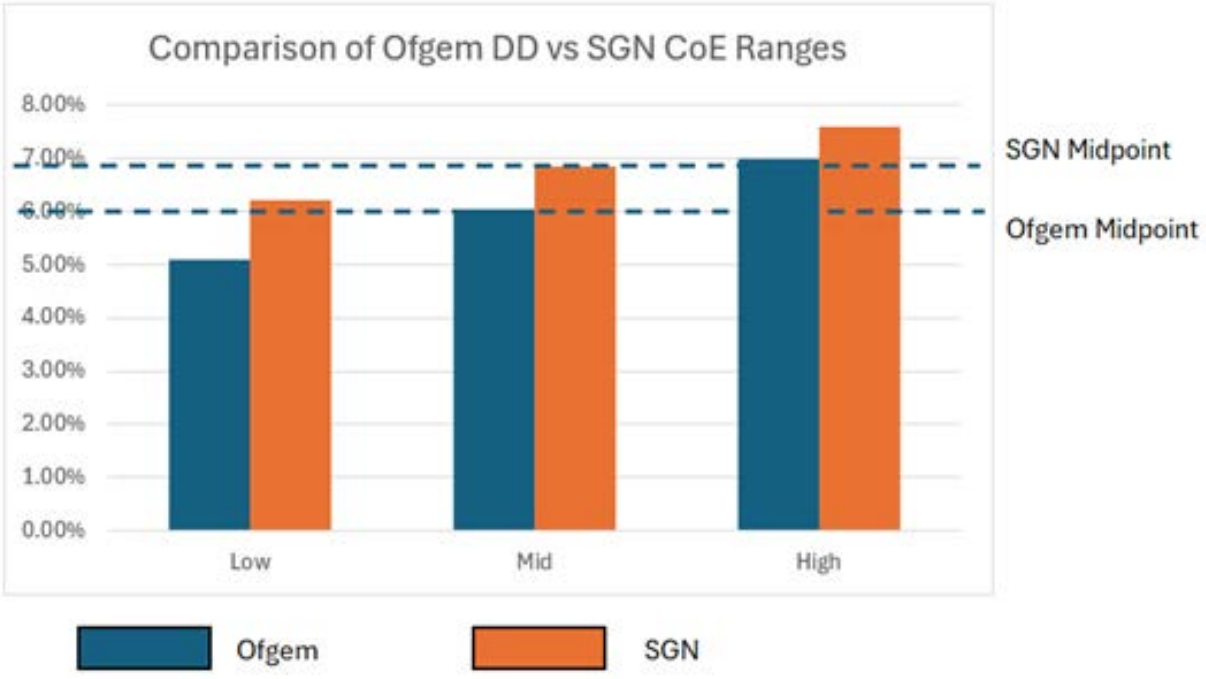
- Methodological and market driven issues
- The fact the low end of Ofgem's beta range does not capture any gas risk

59 These differences are signposted in the table above to the individual FQ responses, and we provide evidence why our midpoint should support Ofgem selecting the top end of their range.

60 Finally, we review a comprehensive set of cross checks which also adds weight to Ofgem moving towards the top of their range.

61 A final vital consideration is balancing the risk and returns which we cover in FQ17. [redacted] Therefore, the mid-point estimate of 6.84% should be considered as a minimum.

Figure 3: Comparison of Ofgem DD vs SGN CoE Ranges



3.1 Consultation questions on Risk-Free Rate (RFR)

FQ7. Do you agree with our methodology for calculating the RFR?

62 The RFR represents the expected return on an asset that is free of risk—i.e. the expected return exactly matches the realised return on the investment, meaning that no risk is involved. In economies with low sovereign default risk, regulators have generally estimated the RFR by referring to the yield to maturity (YTM) on government-issued bonds (referred to as 'gilts' in the UK), either as a baseline to which they add premia, or as one of the instruments that they rely on. As set out on p3 pf the Oxera report RIIO-GD&GT3 cost of equity and debt premium cross-check (SGN-GD3-DD-ECR-19), recent regulatory precedents, such as those from the Competition and Markets Authority (CMA), the Civil Aviation Authority (CAA) and the Utility Regulator (UR) support the inclusion of a convenience premium.

63 As set out in section 2 of Oxera's report - private borrowers, even those with minimal credit risk, cannot borrow at the same rate as the government—in other words, the yield on top-rated corporate bonds (those rated AAA) is generally higher than the yield on government bonds of the same maturity. It has also been argued that government bond yields may fall below the return on a zero-beta asset because these bonds possess special features that create a price premium, usually reducing their yields below the true RFR. Oxera refer to the spread between the government bond yields and the return on a zero-beta asset as the convenience premium. Allowing for a convenience premium adjustment in the calculation of the RFR (e.g. by including highly rated corporate bonds in the assessment) is an approach that other UK and European regulators are increasingly using.

64 Section 2.1 of Oxera's report goes on to show why Ofgem, in the DD, were incorrect to justify the exclusion of the convenience premium based on the following points;

UKRN Guidance (section 2.1.1):

65 Oxera set out that the UKRN guidance[9] doesn't dismiss the existence of a convenience premium - but gave the observed lack of empirical evidence, at the 10 and 20 year investment horizons, as the rationale for deciding not to recommend a 'particular stance' on its inclusion. However, Oxera highlight that the UKRN identifies the necessity of adjustments to index-linked gilt (ILGs) yields at the 10- 20-year horizon is an area that may benefit

[9] UKRN (2023), 'UKRN guidance for regulators on the methodology for setting the cost of capital', p19

from further work. As highlighted below, Oxera empirically justify the necessity of adjustments to ILGs at these time horizons.

RIIO-2 Appeals Precedent (section 2.1.2):

66 Oxera highlight why CMA's conclusion, as part of the RIIO-2 appeals, that to rely solely on ILGs when estimating the RFR was 'not wrong' - does not imply that using ILGs as the sole proxy for the RFR can be considered a better approach than a combination of ILGs and AAA non-government bonds. They also explain that the CMA reiterated there was evidence that supports the existence of a convenience premium, when coming to its conclusion.

Alternative calculation of the convenience premium (section 2.1.3):

67 Oxera evidence why Ofgem's alternative estimation of the convenience premium, by adjusting the AAA bond data to account for higher liquidity and credit risk, is not a consistent and robust approach to estimating the convenience premium, even as a cross-check of Oxera's convenience premium estimate. Instead, Oxera continue to consider that Ofgem should rely on a methodology that has built on recent regulatory determinations. Specifically, Ofgem should estimate the convenience premium comparing the yield on AAA rated non-government bond indices with the yield on duration-matched zero-coupon nominal gilts.

Alternative interpretation of the convenience premium (section 2.1.4):

68 In the RIIO-3 DD[10], Ofgem noted that the inclusion of AAA bond data could confuse the liquidity premium embedded in thinly traded assets with any convenience yield embedded in the yield of gilts. Oxera set out why the liquidity component of the convenience premium embedded within the pricing of gilts does not contradict the existence of the convenience premium. Oxera also highlight that their estimation methodology does not place full weight on the yields implied by the benchmark indices. Instead, similar to the methodology used by the CMA in the PR19 redeterminations, they calculate the implied convenience premium by considering the premium implied by the difference in the gilt yields and the average yields of gilts and benchmark indices—further refined to control for the duration of the instruments. This implicitly assumes that the RFR available to investors is at the midpoint of the gilt and AAA non-government bond yields.

Insufficient supporting evidence on the convenience premium (section 2.1.5)

69 In response to Ofgem's arguments that;

- the literature and empirical estimates presented by stakeholders do not provide evidence of a convenience premium in UK gilts at the 20-year investment horizon
- some of the evidence presented suggests that during periods of market distress government bonds tend to be the only asset considered to be risk-free

Oxera show empirically that a large and positive convenience premium can be observed across a variety of points of the gilts yield curve, including at the 20-year investment horizon. While Oxera recognise the level of the convenience premium can fluctuate over time, depending on the underlying market conditions, they show how the convenience premium has been equally present during periods of calm and distressed financial markets.

70 Building on this analysis Oxera, in section 2.1.6, consider that adjusting gilt yields to reflect the convenience premium is a necessary step in arriving at an accurate estimate of the RFR, and that relying solely on ILG yields would be an error that underestimates the RFR. They set out that they estimate the convenience premium over a 5-year period and why they consider 10+ and 10-15 AAA non-government bond indices to be the most appropriate benchmark from which to calculate the convenience premium, and how they calculate the convenience premium to be 24bps – as summarised in table 6 below (Table 2.3 from the Oxera report);

[10] Ofgem (2025), 'RIIO-3 Draft Determinations - Finance Annex', para. 3.28

Table 6: Convenience premium estimation

	Formula	Oxera estimates
Five-year average of AAA 10+ and 10-15 indices, nominal	[A]	3.12%
Five-year average of 9.5- and 14.0-year gilts, nominal[1]	[B]	2.64%
Average of AAA indices, gilts	[C] = avg ([A], [B])	2.88%
Convenience premium estimate (5Y)	**[D] = [C] - [B]**	**0.24%**

71 As set out in table 7 below (table 2.4 in the Oxera report) Oxera estimate the RFR by taking the one-month average 20-year ILG yield, using 31 March 2025 as the cut-off date, in line with the approach followed by Ofgem. However, in contrast to Ofgem's RIIO-3 DD approach, they add the convenience premium calculated in the table above. Finally, they convert their estimate of the RFR into CPIH-real terms by applying the RPI–CPIH wedge calculated by Ofgem;

Table 7: Risk-free rate estimation

	Formula	Ofgem (RIIO-3 DD)	Oxera estimates
20Y ILG yields, RPI-real[1]	[A]	1.91%	1.91%
Convenience premium	[B]	–	0.24%
Benchmark RFR estimate, RPI-real	[C] = [A] + [B]	1.91%	2.15%
RPI–CPIH wedge	[D]	0.10%	0.10%
RFR, CPIH-real	**[G] = (1+[C]) × (1+[D]) - 1**	**2.01%**	**2.25%**

72 In addition to the Oxera analysis above, supporting the addition of a convenience premium to the 20-year ILG yield, KPMG have also been commissioned by FEN to review Ofgem's approach to setting the RFR. Their report Estimating the risk-free rate for RIIO-3 (SGN-GD3-DD-ECR-20) sets out why there should be an adjustment for the differing risk-free saving and borrowing rates, as well as the convenience yield (premium).

73 As set out in section 2.2 of KPMG's report, their adjustment for Convenience Yield (CY) starts from Diamond and Van Tassel (DVT, 2025)[11]. Ofwat and its advisers in the PR24 process, as well as Ofgem, have acknowledged estimates of CY in DVT. DVT bases the CY-free risk-free rate on the discount rate in the put-call parity relationship on stock options. KPMG's range for CY in 20Y index-linked gilts (ILGs) is up to 29bps and its point estimate is 15.5bps.

74 As set out above, Oxera has also estimated CY and also cites a range of evidence including DVT – in section 2.1.5 of their report RIIO-GD&GT3 cost of equity and debt premium cross-check (SGN-GD3-DD-ECR-19). Oxera's point estimate of 24bps, which is within the KPMG range, bases the CY-free risk-free rate on AAA corporate bonds. As a cross check – KPMG, also bases the CY-free risk-rate starting from AAA corporate bonds, in section 2.2.3 of their report Estimating the risk-free rate for RIIO-3 (SGN-GD3-DD-ECR-20). This cross-check is broadly equivalent to Oxera's approach and supports a higher estimate than 29bps. Both the KPMG and Oxera evidence of CY clearly show that the risk-free rate cannot be estimated based on ILGs without adjustment.

75 Section 2.3 of KPMG's report explains that the CMA at PR19 adjusted for differing risk-free saving and borrowing rates, whilst Oxera's analysis in RIIO-3 has focused on CY. KPMG's report builds on these by including adjustments for both factors which is required by modern academic research. KPMG's adjustment for differing risk-free saving and borrowing rates is the spread between AAA corporate bonds and ILGs, which is 69bps. This is conceptually the same as the CMA's adjustment for this factor at PR19.

76 Finally, section 2.4 of KPMG's report sets out that KPMG's estimate of the risk-free saving rate is the 20Y ILG yield plus CY of 15.5bps and the risk-free borrowing rate is the 20Y ILG yield plus AAA-ILG spread of 69bps. It

[11] DVT (2025) is a Journal of Finance forthcoming paper and is based on the methodology in van Binsbergen et al. (2022) which was a lead article in the Journal of Financial Economics.

has taken the midpoint of these two rates to estimate the CAPM-risk-free rate, which was the CMA's approach at PR19. This results in a RPI risk-free rate of the 20Y ILG yield plus 42bps. KPMG highlights that this 42bps adjustment is likely an underestimate as the estimates adopted for CY and the risk-free saving and borrowing rates are themselves potentially biased down.

3.2 Calculating the Inflation Wedge

FQ8. Do you agree with our methodology for calculating the inflation wedge?

77 We agree with the following elements of Ofgem's DD methodology for estimating the RPI-CPIH wedge;

- Using OBR official forecasts up to the point of convergence of RPI and CPI rates (assumed to be Feb 2030)
- Assuming a zero wedge for the remaining years until the maturity of the 20-year ILG

78 However, Ofgem raises, in para 3.17 of the DD Finance Annex[12], that the OBR assume a long run wedge between CPIH and CPI of 0.4%, implying the 2% inflation assumption, based on the Bank of England's CPI target, may understate long-term CPIH expectations. On this basis it is reviewing whether an adjustment to their inflation assumption and inflation wedge is warranted to reflect OBR's CPI–CPIH long-run wedge. We have a number of objections to this possible approach;

Outturn data indicates no persistent or material wedge:

79 As set out in section 2.2.1 of Oxera's report RIIO-GD&GT3 cost of equity and debt premium cross-check (SGN-GD3-DD-ECR-19), historical evidence does not support the introduction of a wedge between CPIH and CPI in regulatory modelling. The differential between CPIH and CPI has been highly unstable over time, frequently fluctuating above and below zero, with extended periods in which CPI has exceeded CPIH. This volatility demonstrates that the relationship between the two measures lacks the consistency required to justify the application of a fixed wedge in long-term regulatory assumptions.

80 Furthermore, the analysis shows that, over the time horizons typically considered in regulatory decisions, the average wedge is both small and negative. Over the past ten years, the average difference between CPIH and CPI is -0.04%, while over the past 20 years it is -0.12%. These results indicate that CPIH has not exhibited a persistent or material premium over CPI, rather that the data reflects an unstable relationship between the two indices over time**.**

81 As also highlighted in section 2.2.1 of Oxera's report, the conclusion above that CPIH has not exhibited a persistent or material premium over CPI, rather that the data reflects an unstable relationship between the two indices over time - is consistent with Ofgem's own view as articulated in the RIIO-3 SSMD;

> *'Historical CPI and CPIH rates of inflation have typically been very close on average: between June 2013 and June 2023 (inclusive), average monthly CPIH and CPI inflation varied by only 14bps. This approach has also been adopted by Ofwat and by the CMA. Although the difference between CPI and CPIH varies in the short term, in making a long-term estimate for RFR commensurate with the use of 20-year ILGs, we consider assuming that CPI is a close proxy for CPIH is appropriate.'* [13]

82 In this context the recent suggestion that a CPI–CPIH wedge may now warrant consideration represents a significant departure from an established position and the weight of historical evidence, without a reasonable evidence base to support this change

Underlying Parameters of the Long Run OBR Forecast are Challenging to Estimate

83 The most significant difference between CPIH and CPI is the former includes Owner Occupiers Housing Costs, as shown in the following table along with a decomposition of OBR's long term 2.4% CPIH estimate;

Table 8: CPIH Basket Breakdown

CPIH basket breakdown	Weight	Assumed Value
CPI	81%	2.0%
Council tax	3%	4.8%

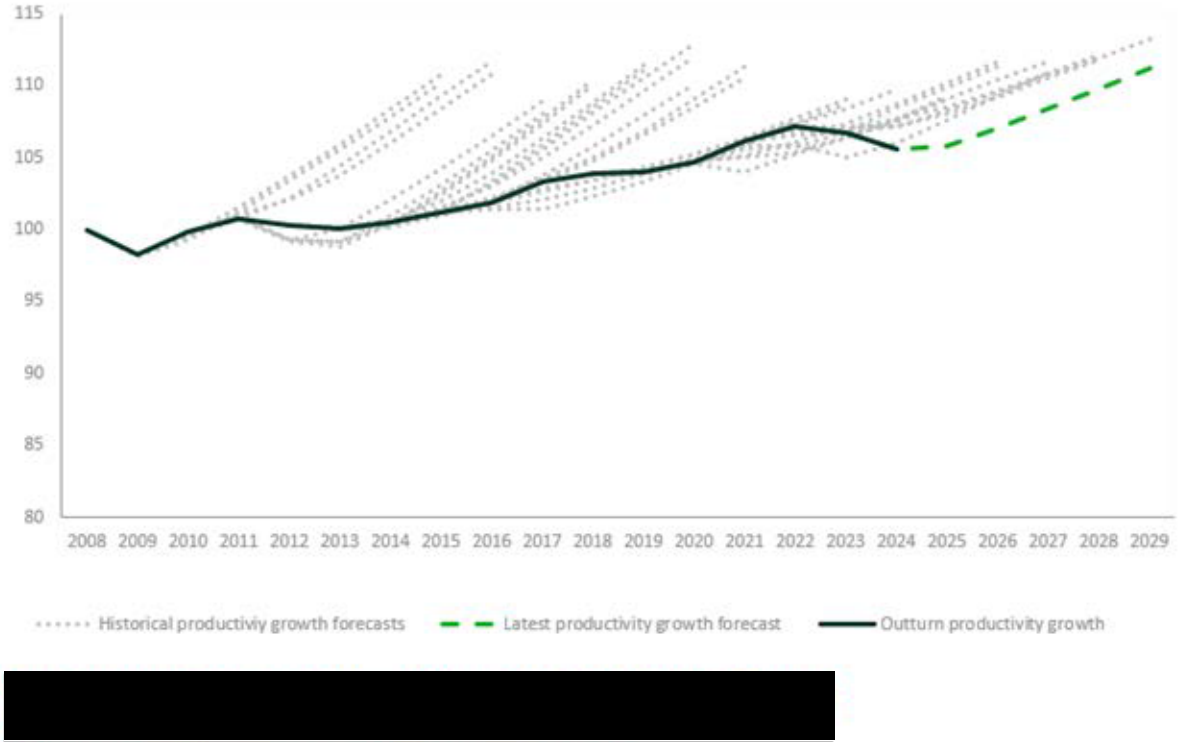
[12] Ofgem RIIO-3 Draft Determinations – Finance Annex, para 3.17
[13] Ofgem (2024), 'RIIO-3 Sector Specific Methodology Decision – Finance Annex', para. 3.56

Owner Occupied Housing Costs (OOH)	16%	3.8%
CPIH		**2.4%**

84 As set out in section 2.2.2 of Oxera's report – the OBR forecasts long-term OOH costs by growing these in line with CPI actual private rental inflation, which in the long run is assumed to grow in line with average nominal earnings. In turn, the main determinants of average nominal earnings growth, and as such the CPIH–CPI wedge, are assumed to be the sum of GDP deflator and productivity growth, which are assumed to grow at 2.3% and 1.5% respectively.

85 Firstly, it is unclear why the GDP deflator is a more appropriate index to use when forecasting nominal earnings growth than CPI itself, which is projected to grow at 2.0%. Secondly, it is challenging to forecast productivity growth accurately, with most OBR forecasts of productivity growth materially overshooting the outturn growth, as illustrated in Figure 5 (Figure 2.4 of Oxera's report) below;

Figure 4: Productivity growth forecasts and outturn productivity growth



[redacted]

86 Section 2.2.2. of Oxera's report goes on to highlight the following remark from Professor David Miles—a member of the Budget Responsibility Committee— to the Parliamentary Treasury committee on the gaps between forecasts and outturn results;

> *'Productivity is really difficult to forecast. Fifteen years ago, people thought that the level of GDP in the UK now would be 30% higher than it is. That has been absolutely transformational. It has been catastrophically bad for a long period of time, and I do not think anybody—any economist—really saw that coming. It is a really difficult thing to predict.'*[14]

88 Finally, Oxera set out that recent Bank of England publications have highlighted that accurately forecasting inflation has become more challenging in recent years.

The Wedge Estimate is Still New and Untested

89 As set out in section 2.2.2 of Oxera's report the OBR only published a first version of its CPIH forecast in the October 2024 economic outlook, explicitly noting that it will 'keep our estimates and forecast methodology

[14] UK Parliament (2024), 'Oral evidence: Economic and fiscal outlook, HC 454', Treasury Committee, 17 April.

under review'.[15] Whilst the OBR has additionally published supplementary forecast information in June 2025, these calculations do not address any of the limitations in their long term CPIH forecast identified above.

OBR's 5 Year CPIH Forecast is a Potential Alternative Forecast

90 We agree with Ofgem's SSMD position that the Bank of England long-term CPI assumption of 2.0% is still the best long-term assumption[16]. Given the issues identified with the OBR's long-term forecast approach above, we do not think a 2.4% CPIH estimate is appropriate for RIIO-3.

91 We note the RIIO-2 methodology was to use a year-5 medium term OBR CPI forecast as a proxy for CPIH. We think this is still a reasonable approach, which would also support 2.0% (the year-5 OBR CPI forecast is currently 2.0%). Furthermore, to the extent that OBR's medium term forecast now includes CPIH, we observe that the year 5 value is currently 2.09%. However, given this is not materially higher than the DD assumption of 2.0% and historically there has not been a material difference, we would recommend no change from using the Bank of England CPI inflation target of 2.0%

92 Therefore, as detailed above, introducing a CPI–CPIH wedge into the regulatory framework would introduce unnecessary **risk, and is not supported by robust and tested evidence of a predictable level of the wedge, at this stage. There is material uncertainty surrounding the forecasting basis and the potential for significant future revisions of the forecast methodology.**

3.3 Consultation questions on Total Market Return (TMR)

FQ9. Do you agree with our methodology change in calculating the ex ante TMR?

93 SGN welcome the changes to Ofgem's ex-ante TMR methodology, namely the removal of downward inflation (COLI-CED) and serial correlation adjustments (paras 3.39 and 3.40 of the DD Finance Annex[17]). However, a couple of important issues still remain with Ofgem's TMR calculation.

94 Firstly, the historical TMR should be based predominately on the ex-post TMR, calculated as per Ofgem's methodology of using the arithmetic mean of one-year returns[18]. This is because the ex-ante approach involves a degree of subjective judgement about how the future will be different from the past as it tries to subjectively adjust historical returns for periods that investors might not be expected to be repeated in the future. As set out in Section 3.3 of Oxera's report RIIO-GD&GT3 cost of equity and debt premium cross-check (SGN-GD3-DD-ECR-19), Ofgem justified continuing to place equal weight on ex ante and ex post estimates based on UKRN guidance. However, while the UKRN guidance suggests that 'the TMR should be primarily based on historical ex post and historical ex ante evidence'[19], it does not recommend assigning equal weight to ex ante and ex post estimates. Therefore, Ofgem continuing to place equal weight on ex ante and ex post approaches remains unjustified. Furthermore, as set out in section 3.3 of Oxera's report, the decompositional approach is not actually an ex ante approach as it tries to assess whether the returns that investors were expecting in the past are well approximated by the historical mean, and thus is more akin to an 'adjusted ex post estimate' than an actual ex ante approach, which would attempt to predict an event before it occurs.

95 Ofgem's overall TMR is based on an average of historical returns and a through the cycle approach without adjustments for the current high-interest rate environment. This is inconsistent with past regulatory practice and could result in companies not being adequately supported in retaining and attracting capital during RIIO-3. We note that the DD Finance Annex (para 3.47) states that Ofgem 'continue to use cross-checks to assess if our 'bottom-up' methodology for calculating TMR is materially out of line with what investors require'. Ofgem has neither defined what constitutes a 'materially' out-of-line TMR, nor compared its bottom-up TMR estimate with investors requirements.

[15] Office for Budget Responsibility (2024), 'Economic and fiscal outlook', October, pp. 38–39.
[16] Ofgem (2024), RIIO3 Sector Specific Methodology Decision – Finance Annex, para 2.128
[17] Ofgem RIIO-3 Draft Determinations – Finance Annex, para 3.39 & 3.40
[18] Oxera note that this is also the averaging approach recommended by DMS for estimating the TMR in the context of a regulatory determination. Oxera (2025), 'RIIO-GD&T3 cost of equity and debt premium cross-check', Section 3.1
[19] UKRN (2023), 'UKRN guidance for regulators on the methodology for setting the cost of capital', p4

96 Figure 6 (Figure 3.1 of the Oxera report) shows the relationship between Ofgem's TMR and gilt yields, and how TMR as previously been adjusted with interest rate changes by Ofgem;

Figure 5: Historical total market return determinations and underlying gilt yields (CPIH-Real)

97 As set out in section 3.4 of Oxera's report, the increase in gilt yields observed in recent years has coincided with only a marginal increase in the allowed TMR. Specifically, between 8 December 2020 and 31 March 2025 gilt yields increased by 4.52% (from -2.58% to 1.93%) on a real basis, while the allowed TMR increased by only 0.4%. In comparison, between 17 December 2012 and 8 December 2020 gilt yields reduced by 2.56% (from -0.02% to -2.58%) on a real basis, while the allowed TMR decreased by 1.49% (when taking into account the transition from RPI to CPI(H)). There therefore needs to be an upward adjustment to reflect the current high-interest rate environment to safeguard investability, also taking into account the fact that UKRN guidance [20] specifies that regulators should not consider the TMR to be fixed.

98 It should be noted that, as highlighted by Oxera in section 3.4 of its report, there is a risk that Ofgem not adjusting the TMR upwards could be interpreted by investors as a signal to expect different treatments in scenarios of increasing and decreasing interest rates. This could undermine investors' confidence and counteract Ofgem's objective of providing a 'stable and predictable' financial framework in a particularly challenging period for the gas sector that is facing challenges in relation to transition risk. Ofgem's proposed TMR range is 6.80–6.90% (CPIH-real). As set out in section 3.5 of their report, Oxera's analysis of the historical evidence and current market conditions points towards a TMR range of 7.00–7.50% (CPIH-real) for RIIO-3. This range takes into account at the;

- Lower end: the 'through the cycle' ex post TMR estimate of 6.95% (rounded to 7), based on an arithmetic average of real equity returns assuming a one-year holding period and using CPIH backcast inflation series, as per Ofgem's methodology
- Upper end: the current market conditions and the significant and sustained rise in gilt yields. In fact Oxera notes they cannot exclude the possibility that values higher than 7.50% would be required at this point in time given that when gilt yields were previously at similar levels (prior to the 2008 financial crisis), the TMR allowance was in the 7.5%-8.0% range in CPIH-real terms. Frontier's updated analysis on the relationship between TMR and gilts also supports a TMR well above the 'through-the-cycle'

[20] UKRN (2023), 'UKRN guidance for regulators on the methodology for setting the cost of capital', p19

value considered by Ofgem.[21] Specifically, Frontier's updated TMR Glider suggests a TMR range of 7.8–8.0% depending on the length of the trailing average.[22] Based on the above, Frontier concludes that the TMR Glider would suggest that the top end of the 7.0–7.5% range would be a suitable TMR value for RIIO-3, given that cross-check values currently lie beyond the range.

3.4 Consultation questions on Beta (β)

FQ10. Do you agree with our methodology for estimating beta?

99 We welcome that Ofgem recognises the increases in risks from RIIO GD2 to GD3 (para 3.58 of the DD Finance Annex[23]) and that higher levels of risk exposure should be accompanied by a higher cost of equity (para 3.113 of the DD Finance Annex), and that they have included European networks to try and address these changes. We also welcome the emphasis on 10-year betas to reduce distortions caused by periods of high or low market volatility. However, we believe **Ofgem should adjust the baseline comparator asset betas set to separately account for gas specific forward-looking risk, such as asset stranding and revenue recovery risk, as these will not be fully priced into historical betas (as set out in our response to FQ11 below.)**

FQ11. Do you agree with our proposed set of comparators which also incorporates selected European utility stocks?

100 We welcome the inclusion of European betas to try and address the increase in risks from RIIO-GD2 to RIIO-GD3 (para 3.58 of the DD Finance Annex[24]). However, we strongly believe that gas networks have a unique existential risk, namely the significant uncertainty over the future of gas. Therefore Ofgem need to adjust the baseline comparator asset betas set to separately account for gas specific forward-looking risks, in particular asset stranding and ongoing revenue recovery risk, as the inclusion of European energy networks and accelerated depreciation is not sufficient to address these risks, as detailed below.

101 As set out in Section 4.1 of Oxera's report RIIO-GD&GT3 cost of equity and debt premium cross-check (SGN-GD3-DD-ECR-19), we agree with Ofgem that the risks faced by UK energy networks and European comparators in the sample are similar. However, the inclusion of European comparators does not necessarily ensure that the entirety of GB gas networks anticipated systematic risks are adequately reflected in the beta estimate, especially considering that it is unlikely a beta comparator set predominantly composed of non-gas companies will accurately reflect gas-specific forward-looking risks.

102 Furthermore, Oxera set out in section 4.1 that;

- Ofwat has adjusted its regulatory capital value run-off rates (i.e. how fast it is depreciating the regulated companies' asset base) downwards (implying a longer depreciation period) in PR24 compared to PR19,[25] which is precisely the opposite to what Ofgem has proposed in its DD for new GD assets, as Ofgem is proposing to ensure these assets are fully depreciated by 2050[26] - implying a shorter depreciation period. This demonstrates that Ofwat is not foreseeing any asset stranding risk for water assets, contrary to Ofgem for gas assets. A similar remark can be made on the comparison between the gas and electricity sectors.
- Ofgem themselves highlight that structural differences are likely to emerge between ET and the gas sector, to justify the cohort split in the calculation of the cost of debt (para 8.9 of the DD Finance Annex)

103 Given this divergence between the gas sector, and the water and electricity sectors, Oxera continue to consider that expanding the evidence base to include US gas networks and European regulatory precedents allows gas-specific risks to be captured, that would otherwise not be by a beta comparator sample predominantly

[21] Frontier Economics (2025), 'Updated cost of equity cross-check evidence', a report prepared for the Energy Networks Association, Section 8.
[22] As discussed by Frontier, 7.80% refers to the value of the TMR Glider based on a 2-year moving average, while 8.00% refers to the value of the TMR Glider as of March 2025.
[23] Ofgem RIIO-3 Draft Determinations – Finance Annex, para 3.58
[24] Ofgem RIIO-3 Draft Determinations – Finance Annex, para 3.58
[25] Ofwat (2024), 'PR24 final determinations—Aligning risk and return - Appendix', December, p. 57.
[26] Ofgem (2025), 'RIIO-3 Draft Determinations – Finance Annex', para. 8.9.

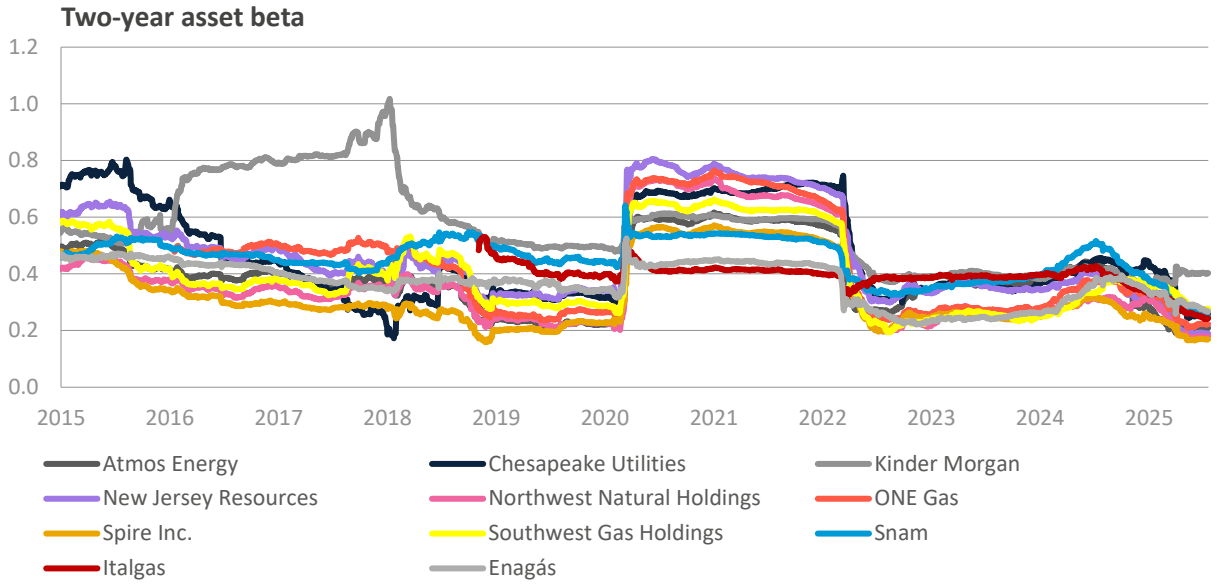
composed of non-gas comparators - such as Ofgem's proposed beta comparator sample. Furthermore, expanding the evidence base to allow gas specific risks to be captured is crucial as accelerated depreciation is not sufficient to address asset stranding and revenue recovery risk as, in reality, there is a maximum feasible customer bill and thus there is significant asset stranding and revenue recovery risk, as set out in our responses to FQ17 and FQ24).

104 We continue to consider that US gas network comparators bring informative value for positioning a gas-specific asset beta range, and we consider that Ofgem should not dismiss the evidence outright, notwithstanding differences in regulatory regimes and net zero risks between GB and the USA. This is because, as set detailed in section 4.1 of Oxera's report regarding Ofgem's assertion that (forward-looking) net zero risks may be different between GB and the USA, Oxera note that, if anything, such risks are likely to be higher in GB than in the USA. This is due to the different policy outlooks and decarbonisation timelines between the two jurisdictions, and in particular the policies followed by the current Trump administration on fossil-fuel use.

105 Ofgem seems to consider that US regimes (due to their ex-post nature) are riskier than the GB regime, but Oxera note this view is contradicted by other comments on the risk of the US regulatory regime and, notwithstanding this point, the move towards more uncertainty mechanisms in RIIO-3 would increase the risk of the GB framework, given their more ex post nature.

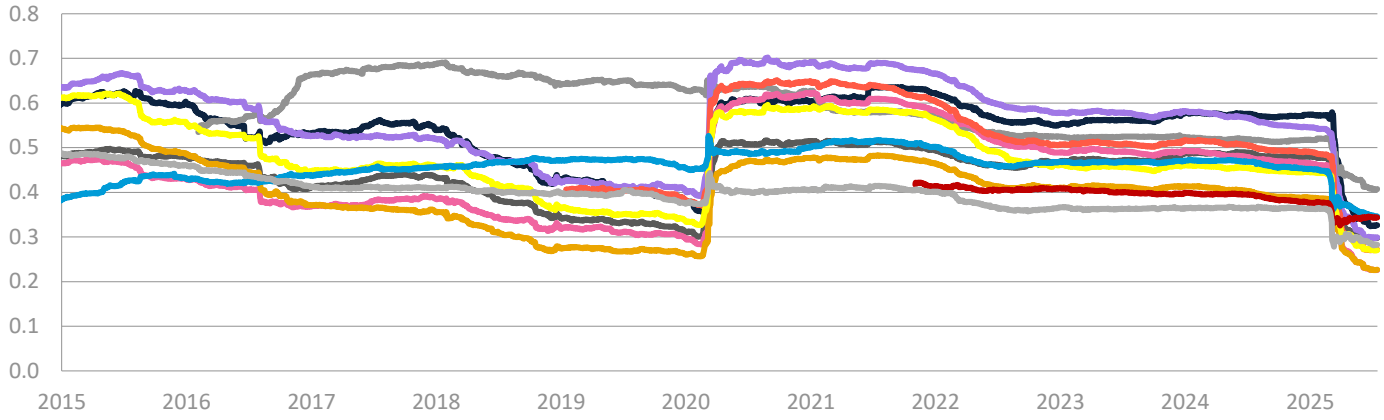
106 The increasing divergence between the gas sector on the one hand and the water and electricity sectors on the other— in particular in relation to how net zero risks may materialise for each sector due to divergent investment pathways —justifies expanding the evidence base to US gas networks to capture gas-specific risks. Furthermore, section 4.3 of Oxera's report updates empirical evidence on US betas from its SSMD report[27] and analyses trends in US and European asset betas. This analysis shows while the level of asset betas varies among companies, most asset betas follow a similar trend and pattern over time, and evolve within the same range as each other. This can be observed post-2020, in particular after the economic shock caused by the COVID-19 pandemic. The consistent movement of asset betas across the sample provides strong support for the view that the US companies are reasonably similar and representative of the gas network sector. This is shown in the following graphs (Figure 4.5 in the Oxera report) which show the development of asset betas of the individual US and European comparators using two-, five- and ten-year estimation windows, respectively;

Figure 6: Two, five and ten-year asset betas

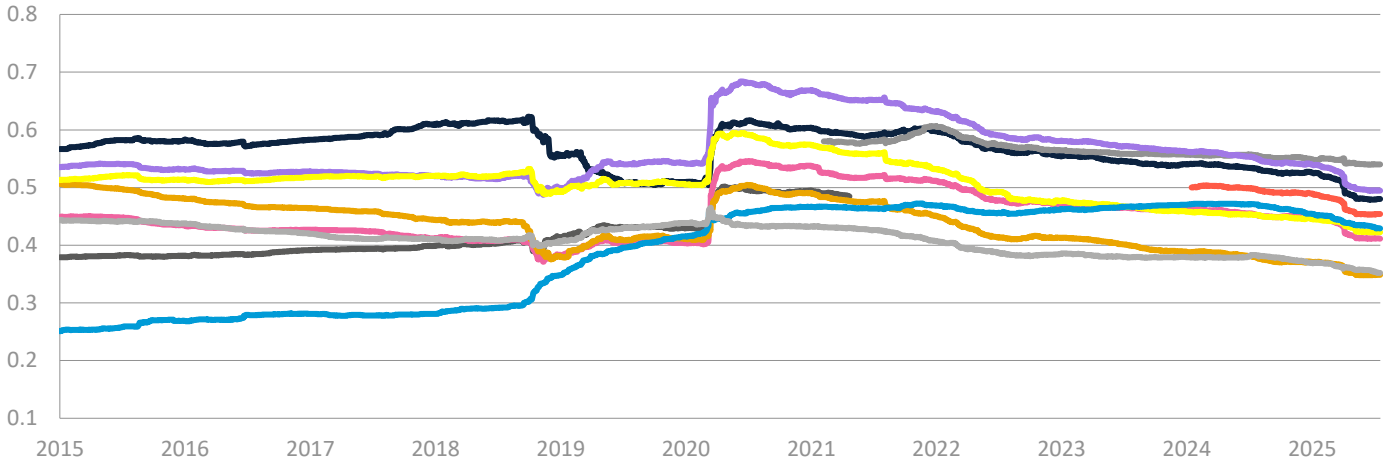


[27] Oxera (20024), 'Cost of Equity for RIIO-GD3'

Five-year asset beta



Ten-year asset beta



107 As highlighted in section 4.2.2 of Oxera's report RIIO-GD&GT3 cost of equity and debt premium cross-check (SGN-GD3-DD-ECR-19), Ofgem's DD has also not engaged with the European regulatory evidence presented in Oxera's previous report[28]. In particular, Oxera showed that European regulatory evidence on gas network beta allowances supported a gas-specific asset beta range of 0.38–0.50 and, in narrowing down their initial gas-specific asset beta range to 0.40–0.44, they gave due consideration to European regulatory evidence. We continue to consider this evidence, set out in section 4.2.2 of Oxera's report RIIO-GD&GT3 cost of equity and debt premium cross-check (SGN-GD3-DD-ECR-19), to be relevant - as it informs Ofgem on the view taken by other regulators on the risks faced by the gas networks that operate within their jurisdictions. Oxera highlight that Ofgem's DD asset beta allowance of 0.375 is below all the European gas network asset beta allowances in its sample.

108 Therefore, a**s detailed in section 4.4.1 of Oxera's report, Oxera's analysis suggests that a gas-specific asset beta range of 0.40-0.44 is reasonable;**

- The low end of this range corresponds to the average of the ten-year asset betas of European gas networks—there are two of them with ten-year asset beta estimates, Snam and Enagás.
- The high end matches the average between the average ten-year asset beta of US gas networks on the one hand and European gas networks on the other, and is anchored by the midpoint of the range of gas network asset beta allowances in European regulatory precedents. Selecting an asset beta point estimate within Oxera's proposed gas-specific asset beta range would therefore not put Ofgem out of line with other European regulators.

[28] Oxera (2024), 'Cost of Equity for RIIO-GD3'

- it is contained in the upper half of the asset beta range proposed by Ofgem in the DD, i.e. 0.30–0.45 (para 3.61 of the DD Finance Annex).

109 Oxera note that taking the average of the European and US averages gives more weight to individual European comparators compared to US comparators, given their sample has more US networks than European networks. Oxera explain that US betas serves only to corroborate their range and help positions it, and the weight given to US evidence remains conservative.

110 Section 4.4.2 of Oxera's report states that Ofgem is likely to attribute some weight to the non-gas evidence presented in the RIIO-3 DD—i.e. to the asset betas of National Grid, UK water companies (in which we welcome the re-introduction of Pennon) and European electricity networks. Therefore, for the purpose of their calculations of the CoE for RIIO-GD3, they consider a RIIO-GD3 asset beta range of 0.375–0.45, i.e. the gas-specific asset beta range expanded at the lower and higher bounds. The new lower bound corresponds to the asset beta allowance proposed by Ofgem in the DD reflecting the inclusion of non-gas evidence in the determination of a RIIO-GD3 asset beta allowance. The higher bound corresponds to the higher bound of Ofgem's own asset beta range. Ultimately, this range corresponds to a truncation of the RIIO-3 range put forward by Ofgem in the DD.

111 Oxera also set out, in section 4.4.2, that such a truncation would be consistent with the fact that using the lower part of Ofgem's proposed asset beta range of 0.30–0.45 would underestimate the required returns for the gas networks. They highlight that, as discussed in their RIIO-3 SSMC report for the ENA[29], there is extensive academic literature suggesting that the CoE implied by the CAPM for companies characterised by relatively low levels of beta and volatility (such as regulated utilities) understates the actual returns earned by these companies. This phenomenon is known as the 'low-beta anomaly' and is a well-documented bias of the CAPM framework which results in underestimated returns for low beta stocks. Considering that regulated utilities typically have equity betas lower than one, there is a material risk that the CoE estimated through the CAPM may underestimate the required return. This further justifies choosing a point estimate towards the top end of Ofgem's asset beta range.

112 Oxera also observe in section 4.4.2 of their report RIIO-GD&GT3 cost of equity and debt premium cross-check (SGN-GD3-DD-ECR-19) that, by construction, compared to their gas-specific asset beta range of 0.40–0.44 - the lower bound of the RIIO-GD3 asset beta range of 0.375–0.45 may not appropriately or fully reflect gas-specific risks (in particular forward-looking risks). This is because of the weight it attributes to non-gas evidence at a time when risks are diverging between gas and the other sectors, and because forward-looking risks may not be fully priced in historical betas. Therefore, picking an asset beta allowance at the low end of this range is likely to underestimate the asset beta of gas networks.

113 Finally, Oxera highlight that Ofgem have recognised that the midpoint of its estimated range may not be the most appropriate point estimate for beta. Considering the higher levels of risk to which gas networks are exposed as a result of the energy transition, Oxera consider that a point estimate towards the top end of the asset beta range proposed by Ofgem in the RIIO-3 DD, would be consistent with Ofgem's expectation of 'higher levels of risk exposure to be accompanied by an offsetting increase in expected returns (i.e. a higher cost of equity).'[30] While Ofgem considers that, after performing its step-2 cross-checks, its current proposed cost of equity is sufficient[31], Oxera note that an asset beta range of 0.375–0.45 for RIIO-GD/GT3 is consistent with Ofgem's statement on picking an asset beta point estimate that is not at the midpoint of its proposed range.

3.5 Consultation questions on Step-2

FQ12. Do you agree with the conclusions we have drawn from our chosen cross-checks?

114 We welcome Ofgem introducing the concept of investability for RIIO-3 in light 'of the potential challenges that the sectors could face in this and future price controls - particularly in relation to the challenges associated with supporting the achievement of GB's net zero targets' (para 3.58 of the DD Finance Annex[32])

[29] Oxera (2024), 'RIIO-3 cost of equity', p66, 69–70.
[30] Ofgem (2025), 'RIIO-3 Draft Determinations - Finance Annex', para. 3.113.
[31] Ofgem (2025), 'RIIO-3 Draft Determinations - Finance Annex', paras 3.123-3.124
[32] Ofgem RIIO-3 Draft Determinations – Finance Annex, para 3.69

115 However, across cost of equity and TMR it has only considered the following 4 cross-checks;

- MARs (Market-to-Asset-Ratios)
- OFTO (Offshore Transmission Owner) bid implied returns
- Investment Managers' TMR forecasts
- Infrastructure Funds' implied cost of equity

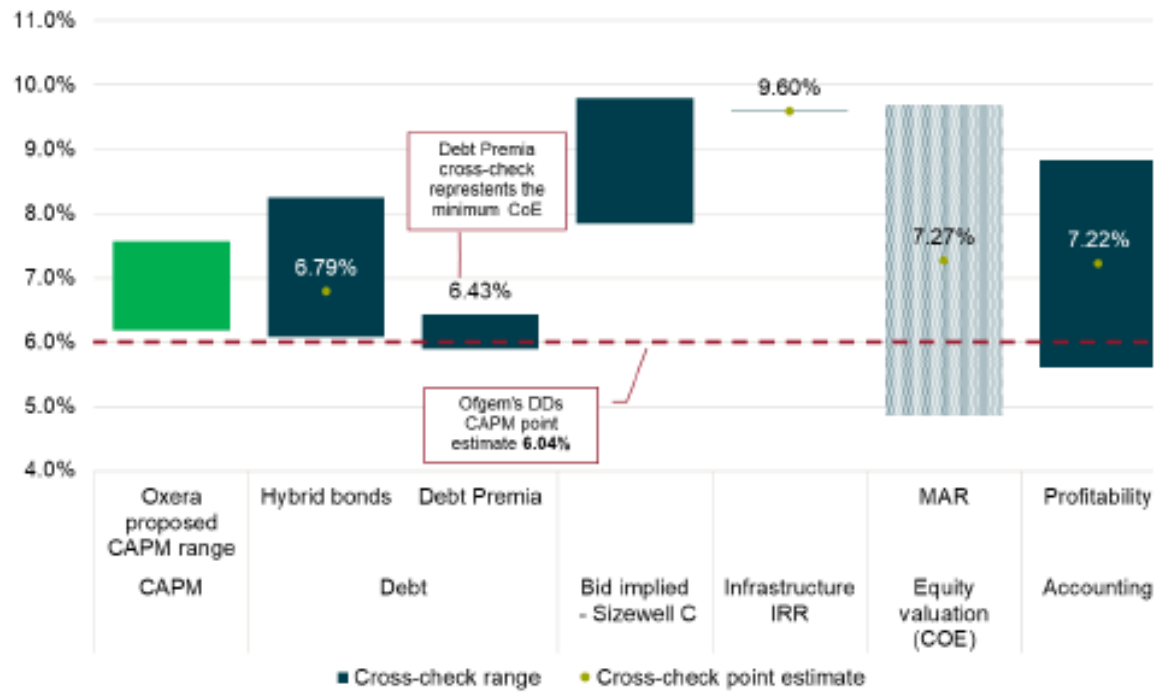
116 As set out below not only do Ofgem's cross checks have their limitations and thus a wider set of cross checks are required to cross check the cost of equity and the TMR, Ofgem would also report higher values for their own DD cross checks - if they used more robust assumptions, bringing into question Ofgem's DD CoE point estimate of 6.04% (even before consideration of a wider set of cross checks). For example, Frontier highlight, on p5 of their report Updated Cost of Equity Cross-Check Evidence (SGN-GD3-DD-ECR-21), that their calculations suggest the MARs and infrastructure fund implied CoE's should be 9.6% and 7.3% CPI-H real, compared to Ofgem's 8.5% and 5.2%, respectively.

117 Frontier's revised outputs for Ofgem's cross checks are set out in the first section of our response below - which also updates and responds to Ofgem's critique of the CoE and TMR cross check evidence detailed in the Frontier Business Plan Cross-Checks Report[33]. These updates then test the adequacy of the Ofgem's step 1 CAPM CoE range. The second section assesses whether Ofgem have appraised the merits of the cross checks submitted by the energy networks on the same basis as they have assessed the ones they propose in the DD, ie an assessment of the cross-check standards of evidence applied. Finally, the third section evidences Inference Analysis and Multi Factor Model cross checks which are additive to those in Frontier's report.

A1. Update to Cost of Equity Cross Check Evidence and Response to Ofgem's Critique

118 The following chart from Frontier's report Updated Cost of Equity Cross-Check Evidence (SGN-GD3-DD-ECR-21) summarises the updated key evidence from a wide range of CoE cross checks;

Figure 7: CoE estimates and cross-checks (CPIH- Real)



Source: Frontier's report Updated Cost of Equity Cross-Check Evidence (SGN-GD3-DD-ECR-21), Figure 1

[33] Frontier (Nov 2024), 'Updated Cost of Equity Cross Check Evidence'

119 Ofgem's DD CoE point estimate sits either below or at the bottom of the cross-check ranges, as shown by the dotted line. Therefore, the above cross-checks suggest that Ofgem's Step 1 point estimate of 6.04% is highly unlikely to satisfy investability criteria. The evidence is strongly indicating that a higher Step 1 CoE output is required to mitigate investability risks. By contrast, the top end of Ofgem's CAPM range (6.96%) and Oxera's CAPM point estimate (6.84%) have much greater overlap with the cross-check evidence. These CoEs therefore provide a more credible prospect as an investable proposition.

120 Below are the key findings from each of the CoE cross-checks;

Hybrid Bonds

121 Hybrid bonds are securities that combine debt and equity characteristics. Since the yield on these hybrid bonds is directly observable, with an appropriate assumption on the proportion of equity like feature of the hybrid bond, an expected return on equity can be implied. The hybrid bond check developed by Frontier is based on the principle that to invest in equity, equity returns must materially exceed debt returns to reflect equity's relative risk. Ofgem's main criticisms are in the following areas;

- the variability of hybrid bond spreads over time: Ofgem states that the spreads of hybrid bonds over the iBoxx Utilies index has varied from just over 0.5% to 3.0%, which makes it difficult to infer a required return from. Section 2.3.1 of Frontier's report shows how this point is not valid as it was for a large sample of hybrid bonds spreads of European utility bonds that was intended to demonstrate robustness of the hybrid bond analysis, not to serve as standalone evidence or to produce a precise estimate for the hybrid bond cross-check. Notwithstanding this important point, Frontier set out how the sample size of 55 bonds and their diverse nature, the distribution of their spreads (80% are all within a much narrower range) and duration of the data set are all factors explaining the range Ofgem quote, in addition to fact that variability in prices is not considered a barrier elsewhere in Ofgem's WACC methodology.
- Ofgem criticises the characterisation of hybrid bonds as equity-like, as they can be called at the first call date, effectively shortening their tenor which does not reflect the perpetual nature of equity: section 2.3.2 of Frontier's report details other characteristics which assign some equity likeness to hybrid bonds and how assuming hybrid securities have equity characteristics as well as debt characteristics is something explicitly accounted for in rating agency methodologies. Furthermore, Frontier set out how focusing on yields at issuance and showing sensitivities for the amount of equity-likeness assumed, also mitigates concerns Ofgem have shared.

122 Section 7.2 of the Frontier report concludes that none of the concerns raised by Ofgem are sufficient to disregard the hybrid bond evidence. This is because the concerns are either mitigated or have been considered as part of robustness analysis. Section 2.4.1 of the Frontier report sets out how the Hybrid cross check estimate, as of end of March 2025, is 6.8% CPIH-real, with a range of 6.1% to 8.3%. Section 7.2 of the Frontier report then highlights that the CAPM point estimate of 6.04% sits outside the range produced by the cross-check (6.1% to 8.3%), and it is significantly below the central estimate produced by the cross-check (6.79%). This indicates that Ofgem's CAPM does not reflect equity like risk premia in current market conditions. As highlighted in section 2.5 of the report, Ofgem's point that the implied cost of equity derived from the hybrid bond cross-check lies within the range produced by their CAPM-based analysis is irrelevant, as regulatory decisions are based on a point estimate. [redacted]

Infrastructure Fund IRR

123 Ofgem obtained discount rates for a set of infrastructure funds that invest in private finance initiatives and private utility assets. It then inferred an IRR for each fund by deflating the discount rates by the premium-to-net asset value (NAV) for each fund to account for outperformance of the underlying assets. Section 3.3 of Frontier's report sets out that this cross check should be used primarily for identifying trends in investor expectations over time, and section 7.2 highlights how Infrastructure Fund IRRs have remained elevated over the past year (9.6% CPIH real as of March 2025). And of particular significance is the scale of change in this cross-check compared to the time of the RIIO-2 FD. IRRs are 5.4% higher than the equivalent value from RIIO-2. This compares with a DD CoE which is only around 1.5% greater than the RIIO-2 FD equivalent. This raises serious questions over whether the Step 1 CAPM CoE outputs have kept pace with trends in the wider

infrastructure capital market, and thus whether they satisfy the investability requirement. It is arguable that a change of this magnitude is exactly the kind of "strong reason" that the UKRN guidance is referring to when it discusses departing from the CAPM range mid-point.

124 Section 3.3 of the Frontier report also highlights that Ofgem has not engaged with the implications of the increasing Infrastructure Fund IRR, which is significantly greater than even the top-end of the Step 1 CAPM range. Section 3.4 additionally highlights that Ofgem's DD IRR of 8.5% (CPIH-real) was from 2024 and is lower than the 9.6% Frontier observes.

MARs

125 As set out in Section 4.2 of Frontier's report Ofgem's move to place more weight on traded MARs is a welcome step. However, the section further highlights that Ofgem has used data from Ofwat that is out of date. They also find that the assumptions used by Ofwat were poorly calibrated. Frontier set out in Section 4.3 of their report that they strongly believe that there are inherent challenges around inferring a CoE from MARs, and they consider there are several ways in which Ofgem's approach could be adapted if Ofgem is to place any weight on MARs as a cross-check;

- update the analysis to reflect the latest available data. The Ofgem quoted CPIH-real range of 4.2% to 6.2% is based on analysis undertaken by Ofwat at the time of the PR24 DD. As this evidence is now over a year old, an update is necessary to ensure the assessment remains robust
- use the baseline CoE from the PR24 FD and Business Plan Incentive awards, which directly influence each Water Company's CoE
- update assumptions for RAV growth and RORE outperformance for the PR24 FD, historical evidence, and the prevailing sentiment around investment needs in the water sector

126 Section 4.4. highlights that a more realistic range of assumptions for asset base growth and regulatory performance shows that the DD Step 1 CAPM CoE output sits at the lower-end of a very wide cost of equity range of 4.85%-9.69%. While Ofgem's proposed CoE falls within Frontier's modelled range, the breadth of outcomes and the positioning of the CoE within it suggest the DD CAPM point estimate of 6.04% may be underestimating the true cost of equity. [redacted]

Implied Bid Information

OFTO bid implied equity IRRS

127 Ofgem continues to rely on OFTO bid implied equity IRRs as a cross-check, reporting an updated 5.7% cost of equity estimate (CPIH-real)[34]. As set out in section 5.2 of Frontier's report, Ofgem acknowledges the limitations of this cross check but believes OFTOs are similar to network investments in having a comparable level of risk and long-term time horizons. However, Frontier do not consider OFTOs to provide a relevant point of reference as a cross-check, primarily as there are no construction activities associated with OFTO bids and OFTOs do not operate under a RAV model. Therefore they believe the comparisons to networks are challenging, and thus recommend that the OFTO benchmark should be discarded altogether. Frontier also note that the OFTO bid implied IRR is confidential, therefore, parties have no visibility over the assumptions or reasoning underlying Ofgem's observations.

Sizewell C IRR

128 Section 5.3 of Frontier's report states the bid-implied IRR of Sizewell C (SZC) should be considered as a new and relevant cross-check in addition to, if not in place of, Ofgem's OFTO bid implied return. This is because it is a RAB financed construction project with a low-risk regulated revenue stream, that is additionally supported by a range of regulatory and commercial arrangements. Therefore, it provides a further real-world benchmark for what is required for a sizeable new equity investment in a regulated infrastructure business and is thus a more relevant cross check for understanding equity return requirements for networks than the infrastructure fund cross-check.

[34] Ofgem (2025), RIIO-3 Draft Determinations – Finance Annex, Table 19

129 Frontier highlight that a new data point from SZC suggests the DD CoE DD may not be aligned with wider market requirements. Centrica, who has a 15% stake in SZC, has stated that it estimates its project IRR to be more than 12% post-tax nominal in a scenario where there is a "moderate" outturn on costs and delivery schedule. In addition, Centrica also estimates that its post-tax nominal IRR would be more than 10% in a scenario where there are "severe" overruns on costs and delivery timings. The risk profile of SZC is consistent energy networks, as the first nuclear build to be constructed using a RAB model.

Long Term Profitability Benchmarking

130 The long-term profitability cross check assesses how the allowed CoE compares with the outturn profitability for comparable businesses. At the DDs, Ofgem decided not to place any weight on the long-term profitability cross-check.

131 Section 6.3 of Frontier's report sets out, in response to Ofgem's DD concern that Frontier did not provide an updated analysis of this cross-check in its Business Plan Cross-Checks Report, that as the cross check relies on annual data there was no additional data available for the November 2024 Business Plan Cross-Checks Report relative to its March 2024 Investability report. Furthermore, with respect to Ofgem continuing to have concerns over the non-regulated businesses and sectors within the cross-check, as well as the differing levels of gearing, it highlights that while Frontier recognise these issues as limitations of the cross check - Ofgem's total dismissal of the informational value of this cross-check is unwarranted. This is because some of Ofgem's own cross-checks suffer from very similar challenges, for example:

- Infrastructure fund IRR also suffers from similar issues with imperfect comparability in terms of risks as these are not always regulated utilities. as evidenced in section 4.1 of Frontier's report Cross-Check Standards of Evidence (SGN-GD3-DD-ECR-22)
- OFTO bid COE, infrastructure fund IRR and investment manager surveys all have data that are based on gearing levels that are not easy to control for

132 Frontier consider profitability metrics are a helpful reference point to ensure the CAPM-CoE point estimate falls within a reasonable location of the range of long-term average profitability metrics. They assess the smallest, largest and median CPI-real return on common equity achieved by comparable investment opportunities averaged over 2002 to 2024, and conclude that the range in values of the return on common equity is relatively large, and appears to be positively skewed. Therefore, they focus on the low and median estimates which they consider provide a good coverage of their sample. On this basis they consider a reasonable range for this cross check is 5.6% - 8.8% CPIH real and conclude that the fact that Ofgem's proposed CoE is towards the low end of the wide range of realised outcomes suggests that the CAPM-based range may be underestimating the true cost of equity. [redacted]

Debt Premia Cross Check

133 As debt holders have priority over equity holders in terms of claims for payments, investors should expect a higher return on their equity investment than their debt investment in the same company, i.e. the CoE must be above the Cost of New Debt. Oxera's Debt Premia cross check compares the risk premia underlying the unlevered CAPM-implied CoE and Cost of New Debt.

134 Oxera have cross-checked Ofgem's and their CoE ranges against the cost of gas network bonds using two specifications of the test:

- comparing the asset risk premium ARP for Ofgem's allowance with the debt risk premium (DRP) where the former must be at least as high as the latter at all times. They estimate the DRP using three averaging periods: one-month, one-year and five-year averages;
- implying the minimum appropriate ARP (and CoE) from the DRP estimate, by re-levering the DRP estimate to approximate the DRP at 100% gearing, where in theory it equals ARP. They then imply asset beta from the ARP to estimate the minimum CoE

135 Further details of the ARP vs DRP calculation and comparison is in sections 6.1 and 6.2 of Oxera's report RIIO-GD&GT3 cost of equity and debt premium cross-check (SGN-GD3-DD-ECR-19), with a response to Ofgem's critique of the Debt Premia cross check in section 6.3.

136 Table 9 below (Table 6.7 from Oxera's report) summarises the outcome of the considered specifications of this cross-check for Ofgem's and Oxera's CoE ranges for GD and GT networks, at 60% gearing. All specifications serve

as a lower bound for the CoE, but some are tighter than others. The test needs to be passed in all its specifications, given that market conditions which affect credit spreads for a given set of assets would also affect the (required return for the) equity risk of those assets, notwithstanding that some volatility in DRP may be temporary.

Table 9: Summary of debt premia cross check

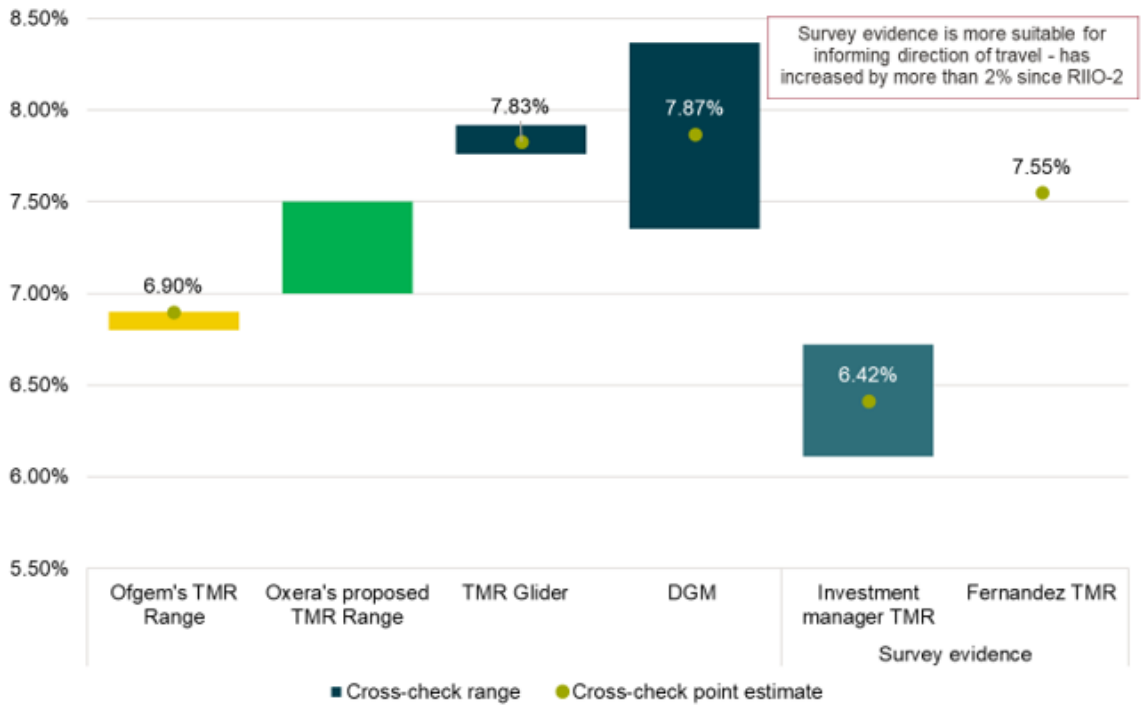
	Ofgem (RIIO-3 DD)			Oxera (gas-specific)		
	Low	High	Proposed	Low	High	Mid
Positive ARP–DRP	Pass	Pass	Pass	Pass	Pass	Pass
Implied CoE—one-month	Fail	Pass	Pass	Pass	Pass	Pass
Implied CoE—one-year	Fail	Pass	Fail	Fail	Pass	Pass
Implied CoE—five-year	Fail	Pass	Fail	Fail	Pass	Pass

137 The table above shows that Ofgem's proposed DD CoE point estimate fails to meet most of the specifications of the debt premia cross-check on the implied CoE discussed in Oxera's report. In contrast, the midpoint of Oxera's range passes all of them.

A2. Update to TMR Check Evidence and Response to Ofgem's Critique

138 The following Figure 4 from Frontier's report Updated Cost of Equity Cross-Check Evidence (SGN-GD3-DD-ECR-21) summarises the key evidence from a wide range of TMR cross checks.

Figure 8: TMR Cross Checks



Source: Frontier Economics

139 As highlighted on p11 of Frontier's report, the market based TMR cross check evidence suggests that the market required rate is currently significantly above the long run average historical realised returns, which Ofgem use for its TMR estimate. Oxera, as per our response to FQ9, have set out a TMR range on 7.0%-7.5%. The cross-check evidence would suggest that the top end of this range would be suitable, given that the TMR Glider values currently lie above the range. Frontier highlight that the data also shows that there has been a

significant increase in TMR values from all sources since the RIIO-GD2/T2 FD. This relatively small increase in the TMR values used by Ofgem since then, of 0.4%, is not sufficient as it fails to sufficiently recognise the forward looking TMR - [redacted] Thus the TMR cross check evidence helps to explain why Ofgem's proposed CoE is too low when compared against an investable value implied by the cross-checks.

140 Below are the key findings from the individual TMR cross checks;

1. DGM and TMR Glider

141 The TMR glider, which draws upon the relationship between market TMR and gilt yields, provides a framework for the TMR which moves with gilt yields but is much less than a one-to-one relationship. I.e. the TMR framework provided is 'stable but not fixed' in line with UKRN Guidance[35], thus supporting investability. The Glider is a tool that recognises some of the limitations of applying Dividend Growth Model (DGM) outputs directly when making regulatory decisions. By establishing a relationship between interest rates and equity market conditions it moderates the volatility inherent with applying Dividend Growth Model (DGM) outputs directly, as they are moderated through the relationship with long-term gilt yields.

142 In the DD Ofgem decided not to use the TMR Glider or DGM, that was part of Frontier's Business Plan Cross Checks report, as a cross check for its TMR estimate. This was due to concerns regarding the use of the DGM. Their concerns are addressed below – albeit it must first be noted that the MARs cross check is also based on DGM analysis; and DGM is a widely used technique, as detailed in Annex E.2 of Frontier's report, proving its relevance and applicability;

- Not All Companies Pay Dividends, so the model is only applicable to those that do: section 8.3.1 of Frontier's report sets out why this is incorrect. Notwithstanding this Frontier note a common reason why companies do not pay dividends is that they are growth companies – which is not applicable to gas networks.
- The DGM assumes perpetual dividend growth. However, a company's dividend might fluctuate or indeed be cut completely: Section 8.3.2 of Frontier's sets out that it is standard practice for economic growth models to assume a positive real long-run growth rate, and highlights that if a single stock was being analysed Ofgem's concerns may have greater validity, but when considering an entire market, it is standard to assume positive long-run growth in dividends. Any other assumption would imply a fundamental shift in the relationship between corporate payouts and the wider economy.
- DGMs are also highly sensitive to assumptions about the future dividend growth rate: Section 8.3.3 of Frontier's report details that whilst no assumptions are perfect, their approach of using long-run forecasts of UK GDP as their long-run dividend forecast growth rate is preferred for the three main reasons of stability, credibility and common usage. They also set out how, although they consider these properties of the growth assumption contribute to robust outputs, their Calibrated DGM acts as a robustness check (in section 8.4.2).

143 Section 8.4 of the Frontier report sets out how the 2-year moving average of the TMR Glider value is 7.83% (at end March 2025), compared to the 2-year moving average of the DGM-implied TMR of 7.87%. By using 2 years of data, Frontier captures recent market conditions without placing too much weight on short term fluctuations in the gilt yield. They also use 2 years of data to construct their TMR Glider cross-check range. Using the 20th and 80th percentile, and the low and high end of their range, gives a range of 7.76-7.92%. [redacted] Oxera, in its report RIIO-GD&GT3 cost of equity and debt premium cross-check (SGN-GD3-DD-ECR-19), has set out a TMR range on 7.0%-7.5%. The TMR Glider evidence would suggest that the top end of this range would be suitable, given that cross-check values currently lie beyond the range.

[35] UKRN (2023), 'UKRN guidance for regulators on the methodology for setting the cost of capital', p19

2. TMR Survey Evidence

144 At Draft Determinations, Ofgem has continued to rely on its own Investment Managers TMR Forecasts survey cross-check, and rejected the Fernandez TMR survey that Frontier have proposed[37]. Section 9.3.2 of the Frontier report Updated Cost of Equity Cross-Check Evidence (SGN-GD3-DD-ECR-21) details the following significant issues with this approach;

- Ofgem has only looked at the forecasts of nine financial institutions, which can lead to a biased TMR forecast result and not accurately reflect the real market expectations of TMR.
- Ofgem has not specified which nine institutions have comprised its sample of forecasts, creating issues of replication and traceability. As survey evidence is most useful for ascertaining trends, Frontier have previously suggested it is useful to consider such evidence reported on a consistent basis over time.[38]
- Ofgem criticised the Fernandez TMR survey precisely for the reason of traceability, but draws on a cross-check that has the same issue and is based on a smaller sample.

145 Frontier have attempted to expand Ofgem's dataset, using publicly available forecasts from 12 financial institutions that published a forecast for the UK over the past year, giving an average nominal TMR of 8.2%. There is a subset of nine forecasts from this sample that yields the 8.0% TMR Ofgem has arrived at. When considering the same set of funds on a consistent basis, the sample of funds used at RIIO-2 yield an average nominal TMR of 8.9% (compared to 6.5% at RIIO-2).[39] This shows a significant increase in TMR values of 2.4% for a consistent set of institutions over time.

146 As this cross-check is based on a relatively small sample and is highly sensitive to the particular institutions included in the sample, Frontier propose that it is supplemented with the Fernandez TMR survey, which is discussed below.

147 As set out in section 9.3.2 of Frontier's report, the Fernandez TMR survey is an annual survey of academics analysts and company managers regarding the risk-free rates and market risk premium to calculate the required return to equity. Ofgem proposes not to use this cross check as it only had 82 respondents and it is not clear who they are. However, its TMR investment managers cross check only has 9 financial institution forecasts and the Fernandez survey recipients are professionals working in relevant academic and commercial areas. The Fernandez survey also takes additional steps to enhance the robustness of the results, e.g. exclusion of outliers. The evidence from the Fernandez survey points to a significant increase in the TMR between 2020 and 2024 – an increase of around 3 percentage points from 6.9% in 2020 to 9.7% in 2024, in nominal terms

148 Overall, the findings from the TMR evidence detailed above points to a significant increase in market expectations of TMR since RIIO-2, and a higher TMR than Ofgem reports in its cross-check. Ofgem must consider this wider market evidence carefully and incorporate it into its TMR cross-check.

B. Cross check standards of evidence

149 In response to Ofgem introducing the concept of investability and the use of cross checks to support this, Frontier prepared a Business Plan Cross Checks report setting out how cross-check evidence could be used to assess investability. While this report covered a wide range of cross check evidence, it highlighted the particularly important role that hybrid bonds (and other debt-based cross-checks) might play in assessing the overall cost of equity. It also set out that Dividend Growth Model (DGM) based analysis could provide a valuable cross-check on Total Market Return (TMR) (e.g. through the TMR Glider and the calibrated DGM).

150 However, having reviewed Frontier's report and cross-check evidence submitted by companies at business planning stage, Ofgem has maintained that it will continue to just rely on its own cross-checks utilised at RIIO-2[40].

[37] Ofgem (2025), RIIO-3 Draft Determinations – Finance Annex, para 3.106

[38] Frontier Economics (2024), Business Plan Cross-Checks Report, Section 8.1
[39] Ofgem (2020), RIIO-2 Draft Determinations – Finance Annex, Table 23
[40] MAR cross-check on implied costs of equity, OFTO implied returns cross-check, unadjusted investment managers' implied cost of equity cross-check, and unadjusted infrastructure funds' implied cost of equity cross-check. Ofgem (2025), RIIO-3 Draft Determinations Finance Annex, table 19

Bias in Ofgem's approach

151 Frontier have reviewed the reasons given by Ofgem (and Ofwat) for not relying on hybrid bonds and DGM based cross-checks on TMR. Their report Cross-Check Standards of Evidence (SGN-GD3-DD-ECR-22) reveals that Ofgem and Ofwat have not to date appraised the merits of different types of cross-check on a consistent and objective basis.

152 The report (p4) highlights that the reasons to discard cross-checks proposed by networks are often based on unreasonable hurdles, such as the sample being small, benchmarks being imperfect and the need to use assumptions to operationalise the cross-checks. Frontier highlights that their analysis shows if these hurdles are applied to Ofgem's own cross-checks, they would need to be discarded as well. Furthermore, Frontier state if Ofgem were to apply a consistent quality standard to the available cross-check evidence, it would find the evidence suggested by debt-based cross-checks and DGM-based TMR cross-checks informative. Failure to place weight on relevant information would be wrong and could lead to the allowed return being set at the wrong level.

153 In respect of DGM based cross-checks on TMR, Ofgem has rejected these due to concerns over DGM based methods generally. However, Ofgem (and Ofwat) continue to rely heavily on MAR cross-checks that are based on entirely the same DGM logic. In doing so, regulators have not justified the differing and partial treatment conceptually similar cross-checks, as explained on p5 of Frontier's report. Sections 3.3 and 3.4 of Frontier's report set out regulatory concerns with DGM, and how these apply to MARs, and how MAR results are similarly sensitive to assumptions as DGM analysis. Section 3.5 then goes on to show how the DGM analysis used in the Frontier report Updated Cost of Equity Cross-Check Evidence (SGN-GD3-DD-ECR-21) is robust and provides credible evidence of the contemporaneous TMR in the equity market.

154 Section 4.2 of Frontier's report, Cross-Check Standards of Evidence (SGN-GD3-DD-ECR-22), highlights that Ofgem is concerned that the debt-based cross-checks cannot definitively prove or 'back solve' to a required return on equity.[41] Fundamentally, this is not the right test to employ on cross-checks; no cross-check (nor the CAPM) can definitively prove a cost of equity, and using this as a criterion would render all cross-checks unusable. Furthermore, p5 of Frontier's report finds that the concerns raised by regulators regarding the hybrid bond cross-check are insufficient to render this cross-check uninformative, and moreover similar concerns are present and accepted in regulators' own cross-checks. Ofgem's concerns in relation to Frontier's hybrid bond cross-check centre around the;

- use of a narrow sample: section 4.1 of their report explains that while Frontier have selected a preferred bond around which to anchor our results, their main finding is supported by a much wider universe of hybrid bonds which reveals no bias results from this. Frontier also sets out how sampling issues/decisions are present in Ofgem's cross checks, eg setting out the sampling decisions in the Infrastructure Funds IRR and Investment Managers MR cross-checks.
- need for further assumptions to be used to derive our result: section 4.2 explains how numerous sensitivities have been presented to inform a wider understanding of the strength of evidence and highlights the assumptions Ofgem makes in its own cross checks, eg the MARs analysis requires regulators to make assumptions on growth rate and performance, and the proportion of the business which is regulated, and the infrastructure IRR cross-check employed by Ofgem requires an assumption on the conversion from the fund IRR to a cost of equity estimate with an adjustment for market to asset ratio.

Recommendations for RIIO-3

155 Frontier's report (p4) states that their investigation suggests that Ofgem (and Ofwat) have not to date appraised the merits of different types of cross-check on a consistent and objective basis. They believe both have taken a biased approach to deciding which cross-check evidence to rely on, and which to essentially discard.

156 Frontier (p6) find that if Ofgem and Ofwat were to apply a consistent standard of evidence to the available cross-checks, they should:

[41] Ofgem (2025), RIIO-3 Draft Determinations Finance Annex, para 3.100

- Place some reliance on DGM -based TMR cross-checks, if they continue to assign weight to their MAR inference cross-check; and
- Place some reliance on debt-based cross-checks such as hybrid bond cross-check when assessing the overall CoE, as the criticisms levied on the hybrid bond cross-check are present in regulators' own cross-checks.

157 Frontier's report (p7) explains that by relying on a fuller set of information, regulators can come to a more informed view of market conditions with respect to the allowed equity return; it is clearly superior to place weight on a suite of cross checks, albeit all with merits and limitations, than to place weight on a smaller number of cross-checks (given that Ofgem's own set of cross-checks are subject to limitations also). By considering a wider range of evidence, Ofgem would be better equipped to set the CoE at an appropriate level which mitigates investability risks and protects customers.

158 Also, as set out in section 2.1. and 2.2 of Frontier's report, there is a degree of estimation uncertainty surrounding each CAPM parameter and CAPM (like all available models) is not perfect; over the years, there have been various academic studies aimed at assessing whether CAPM could be improved. This creates a role for a balanced set of cross-checks, as a safeguard against estimation uncertainty and to sense-check judgements that have been taken when estimating CAPM parameters. Properly constituted and considered, a comprehensive and balanced set of cross-checks can assist in setting an equity return at a level which supports policy and regulatory objectives.

C. Additional Cross Checks

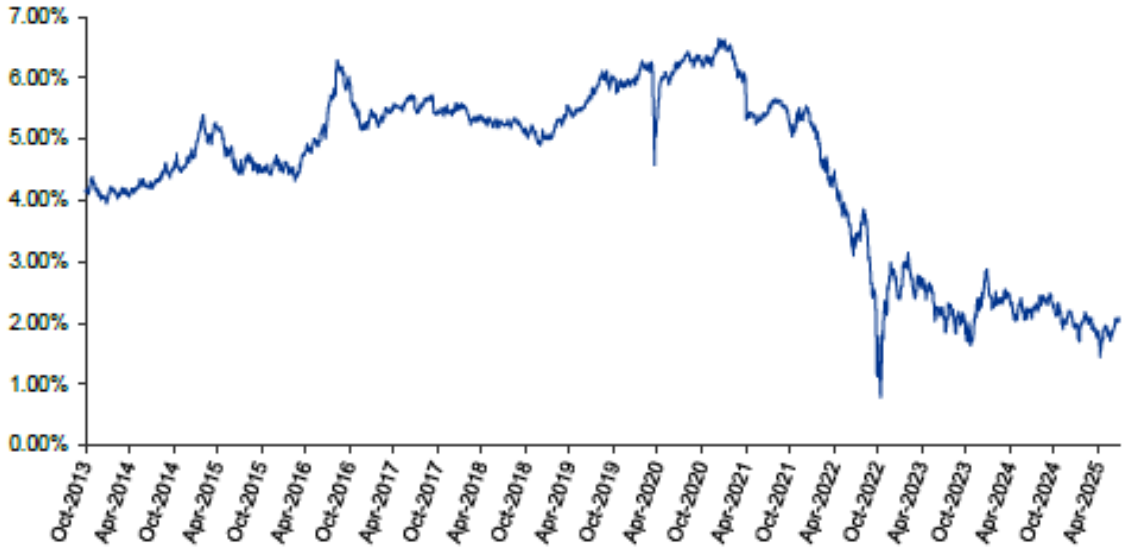
1. Inference Analysis

159 As set out in section 1 of KPMG's report, Inference analysis as a cross-check on allowed returns at GD&T3 (SGN-GD3-DD-ECR-23), inference analysis provides an empirical approach to calibrate a debt-equity cross check - supporting a robust and investable cost of equity estimate. Equity investors often face multiple investment options, each with different risk-return profiles. When making capital allocation decisions, they assess competing opportunities, including debt, which offers lower risk and more secure returns. Given the higher risk profile of equity – due to subordination in insolvency, limited control rights in the event distress, and discretionary returns – the expected return must meaningfully exceed that of debt to attract capital, as detailed in section 2 of KPMG's report.

160 For GD&T3, there is a disconnect in the DDs between the risk reflected in the CoE and CoD. While CoD allowances vary to reflect the higher credit risk in gas networks relative to electricity transmission, CoE estimates assume no difference in sector risk profiles. To maintain equity investability, both CoE and CoD must accurately reflect the gas sector's evolving and comparatively higher risk profile, as well as the current high-interest rate environment. Direct evidence from the debt markets indicates that the allowed CoE no longer includes the same risk premium over debt as it did previously, even before consideration of the difference in sector risk profiles. Figure 10 below (Figure 3 from the KPMG report) shows the evolution of the differentials between allowed CoE[42] and the cost of new debt pricing[43]. The effective maturity of the iBoxx A/BBB index is close to 20 years such that the investment horizons implied in CoE and debt pricing are broadly consistent;

[42] The allowed CoE is calculated based on the Total Market Return (TMR) and equity beta assumptions outlined in the RIIO-3 DDs. The Risk-Free Rate (RFR) is derived as a one-month average of 20-year Index-Linked Gilt (ILG) yields, calculated for each respective day.
[43] The cost of new debt is calculated using different benchmarks over time. From 01/10/2013 to 31/03/2021, it is based on the unadjusted iBoxx A/BBB non-financials 10+ index. Between 01/04/2021 and 12/12/2023, it is based on the unadjusted iBoxx Utilities 10+ index. From the RIIO-3 Sector Specific Methodology Consultation date of 13 December 2023 onwards, the benchmark reverts to iBoxx A/BBB non-financials 10+ with a benchmark adjustment of 45bps (see Section 5.2). In all cases, the cost of new debt is reduced by 14bps to reflect the expected default loss rate (as calculated in Section 5.2).

Figure 9: Evolution of the differential between allowed CoE and cost of new debt pricing



Source: KPMG Analysis

161 Inference analysis should be adopted as a debt-equity based cross check as it;

- offers an independent estimation framework, avoiding the limitations of CAPM such as relying on historical inputs and assumptions that may not reliably reflect future market condition (set out in section 6.1 of KPMG's report)
- uses forward-looking, observable debt yields that reflect real-time market perceptions of risk (set out in section 2 of KPMG's report)
- links equity returns to debt returns via elasticity, recognising that the relationship between CoE and CoD is dynamic rather than fixed. The principles and methodology behind the calculation of the expected elasticity, which is the expected relationship between equity and debt returns, and the calculation of the inferred CoE, are set out in sections 4 and 5 of KPMG's report.

162 As detailed in section 5.2 of the KPMG report, the inferred CoE calculated in the Report reflects the same 20-year investment horizon used in the DDs, to ensure comparability and internal consistency with the CAPM-based CoE. To align the cost of new debt – and thus the inferred CoE – with this 20-year horizon, the report incorporates a 45bps gas-specific premium estimated by NERA[44]. This premium is derived from the relative spreads between gas network bonds and the iBoxx A/BBB benchmark, calculated on a like-for-like tenor basis using primary market data (as detailed in our response to FQ1). As a result, the cost of new debt reflects an investment horizon close to 20 years, consistent with the DD CAPM-CoE assumption.

163 Section 6.2 of KPMG's report details the inference analysis results and implications for GD&T3. Using 31 March 2025 as the cut-off date, the inferred CoE range is estimated between 6.94% and 7.45%, based on averaging windows of 1, 12, and 24 months. By comparison, the DDs set the point estimate for the GD&T3 CoE at 6.04%, which is materially below the lower bound of the inferred CoE range. All else being equal, this indicates that the CAPM-derived CoE in the DDs is not aligned with current market debt pricing and the observed relationship between debt and equity returns, implying a material miscalibration of the allowed CoE, and suggests that Ofgem should consider selecting a point estimate at the upper end of their CAPM range. As set out in section 5.1 of KPMG's report given the absence of listed regulated gas networks, National Grid (NG) is used as a proxy. Using NG's expected elasticity to infer CoE for gas networks may lead to inferred CoE estimates that understate the true CoE required for a notional gas network. This is because gas networks face higher borrowing costs than electricity networks, reflecting higher risk perceptions of the sector from the investors. Higher risk is expected to be translated to greater volatility, which is a driver of elasticity.

[44] NERA (2025), Gas Network Premium (GNP) and Additional Cost of Borrowing (ACB) for GD/GT3

164 As set out in section 1 of the KPMG report, the retention and attraction of equity capital in the gas sector is increasingly dependent on allowed returns that reflect the evolving risk landscape and shifting investment profiles associated with the energy transition. If allowed returns fail to compensate for forward-looking risks and the opportunity cost of capital in current market conditions, the retention of and the access to equity is likely to be constrained, which results in detriments to customers. Ofgem should consider selecting a point estimate at the upper end of their 5.06%-6.96% CoE range to ensure that investment in gas sector equity remains attractive relative to debt.

2. Multi Factor Model (MFMs) Cross Check

165 Whilst the CAPM is the primary model used for estimating the cost of equity in UK regulation, it is estimated with uncertainty and has known flaws including omitted variables bias and poor performance for low beta stocks, as detailed on p9 of Kairos' report Cost of Equity for RIIO-3: Gas Vs Electricity and MFM Cross-Check (SGN-GD3-DD-ECR-24). Kairos set out that these shortcomings are particularly important for regulated utilities as the beta is likely to be less than 1 and thus cross-checking the CAPM-CoE with a MFM-CoE is an essential cross-check that has, to date, been underutilised in economic regulation. Their assessment of the evidence provided by the MFM cross check (p10) finds that;

- The q-factor MFM should be applied when deriving a UK CoE estimate, given its superior performance compared to alternatives such as the Fama-French Five Factor (FF5F) model. Factor returns for the q-factor model are not readily available for the European comparators, hence the MFM cross check is applied to Ofgem's UK comparators only.
- For the UK comparators, the difference between a CAPM-CoE and MFM-CoE is 30bp on average (using Ofgem's approach of a 10-year historical estimation period of data).

166 Kairos conclude that aiming up is required on the mid-point CAPM CoE, given it underestimates the CoE.

3.6 Systematic v Non-Systematic Risk

FQ13. Do you agree with our treatment of risks to the ET and Gas sectors as non-systematic?

167 GDNs face an existential risk in terms of the future of gas due to government policies on Net Zero. It is incorrect to assume that asset stranding and cost recovery risk is non-systematic and thus can diversified by investors. As detailed on p6 of Kairos' report Cost of Equity for RIIO-3: Gas Vs Electricity and MFM Cross-Check-ECR (SGN-GD3-DD-ECR-24), as part of the RIIO-2 appeals to the CMA it was submitted that gas networks faced higher systematic risk than electricity due to the transition to Net Zero. The CMA acknowledged 'the uncertainty that arose from the Net Zero agenda and the potential for a disproportionately large impact on investors in the gas networks.[45]'

168 Kairos set out that the CMA considered that, at the time of the RIIO-2 appeals, there was insufficient market evidence that investors were pricing in a higher risk for gas[46] and that the questions of whether and to what extent gas risk is higher due to the Net Zero and how this should be addressed, could be dealt with in the future, when there was more clarity on the role of gas[47]. However, as RIIO-3 approaches there is sufficient market evidence on investors pricing in a higher risk for gas and there is now also more clarity on the role of gas;

- Cost of Debt Market Evidence: in RIIO-3 Ofgem have proposed the introduction of a benchmark adjustment for gas networks based on analysis of the Yield to Maturity of issuances across the gas sector compared to their proposed benchmark index (iboxx A/BBB Non Financials 10+ corporate indices), as set out in para 2.25 of the DD Finance Annex[48]. They conclude that their findings indicate a deviation from the benchmark, supporting the case for an upward adjustment to better reflect observed market conditions. Para 2.24 of the DD Finance Annex concludes no such upward adjustment is required for electricity companies, ie debt investors are pricing a higher risk for gas. Given there is a direct relationship between the cost of debt and equity, as equity investors are subordinate to debt

[45] CMA, Energy Licence Modification Appeals (2021), 'Final Determination: Volume 2A: Joined grounds: Cost of equity' (28 October 2021). (CMA RIIO-2 appeals), para. 5.866.
[46] CMA RIIO-2 appeals, paras. 5.870 and 5.886
[47] CMA RIIO-2 appeals, paras. 5.867 and 5.888.
[48] Ofgem (2025), RIIO-3 Draft Determinations Finance Annex, para 2.25

investors in terms of claims to payments – this means that the higher risk needs to be priced into equity to maintain the premia of equity vs debt.

- Cost of Equity Market Evidence: As shown on p7 of Kairos' report the difference in average asset betas of the European gas and electricity portfolios is 0.02-0.03, which amounts to a 25-37bp impact on the CAPM CoE. Therefore there is a difference in systematic risk between regulated gas and electricity networks that needs to be factored into the cost of equity.
- Section 4.1 of Oxera's report RIIO-GD&GT3 cost of equity and debt premium (SGN-GD3-DD-ECR-19) sets out how that asset stranding is likely to have a systematic component, giving the example of how decarbonisation policies (and by extension asset stranding risk) may be affected by economic shocks, as exemplified during the 2022 energy crisis that led governments to prioritise affordability and security of supply over decarbonisation efforts.
- Moody's commented in it its latest sector update that[49];

  'we see higher business risk for gas networks than electricity because gas network use will ultimately decline, whereas electricity networks are growing in support of the energy transition. The additional uncertainty associated with the detailed pathway and timeline to net zero as well as potential risks of future policy decisions and affordability constraints means that GB gas networks will have to exhibit a stronger financial profile to maintain existing credit quality'

- S&P have recently increased their rating of the GDNs financial risk profiles due to Ofgem expecting a decline in gas demand and acknowledging uncertainties in the future of fossil gas[50]
- FES/NESO scenarios where natural or green gas plays a much-reduced role in heat are being openly discussed regarding Ofgem policy, and the government is starting a programme of work consulting on an 'orderly transition of the gas network'.

169 Furthermore, until there is a guarantee of RAV and cost recovery - gas networks also face the non-systematic, asymmetric risk, of asset stranding and non-recovery of ongoing costs. As shown in the Balance of Risk analysis in response to FQ17, this is not mitigated by accelerated depreciation due to maximum potential bill increases and the fact that the quantum of RAV that can be recovered through asset repurposing is so uncertain. Unless investors receive a guarantee of RAV and ongoing cost recovery there needs to be aiming up from the mid-point cost of equity to reflect asset stranding risk.

3.7 Dividend Allowance Policy

FQ14. Do you agree with our proposed dividend allowance policies for the notional gas and electricity companies?

170 We answer this question with respect to the proposed dividend policies for notional gas companies. Shareholder returns come in the form of dividends and RAV / Capital growth. If the RAV is not expected to grow materially, as was assumed in the Draft Determination, the only return equity investors will receive is from dividends. If notional company financeability assessments are to be credible, the assumptions need to reflect this real-world position. This means that the dividend stream investors receive in the notional company must be closely aligned with the cost of equity of the notional company. As set out in section 2.1 of Oxera's report Dividends in RIIO-GD/T3 (SGN-GD3-DD-ECR-25) as RAV growth flattens cash not being used to fund profitable investment programmes (that would increase the value of the business) should be returned to shareholders, subject to financial resilience requirements otherwise being met.

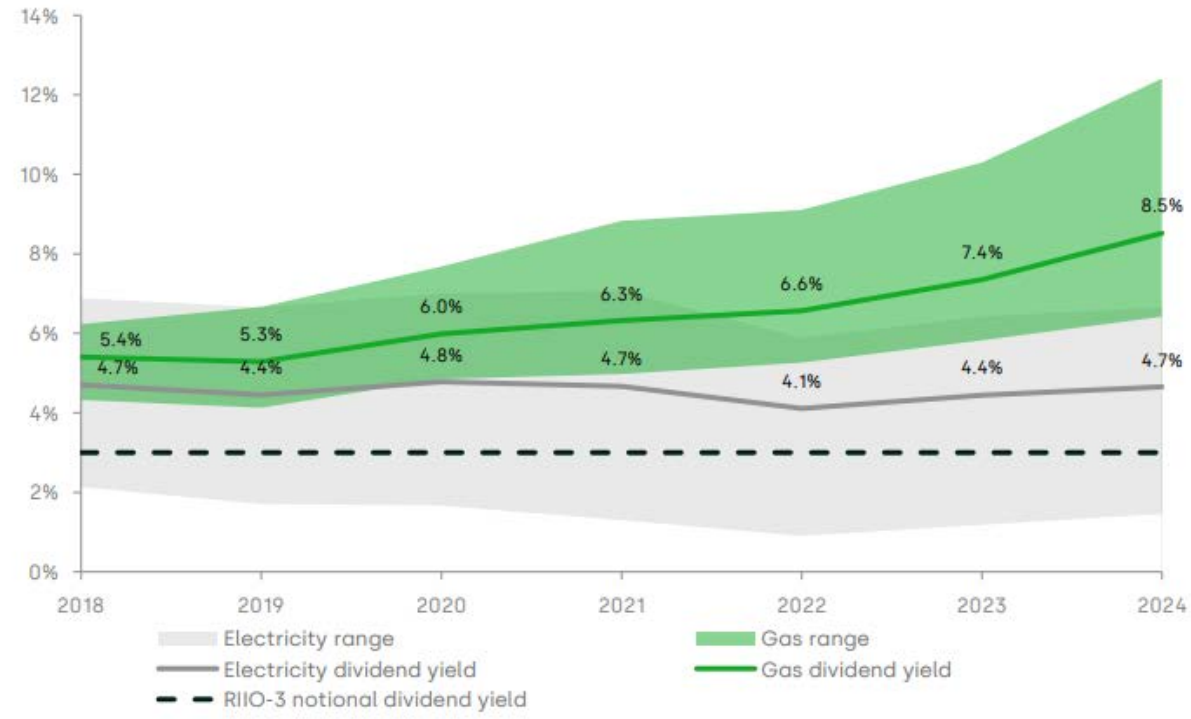
171 The Draft Determination assumption of 3% is a long way from that position, discrediting Ofgem's financeability test and sending a damaging message to equity holders that they should only receive half of their equity return in dividends, but with no prospect of capital growth. This is not an investable proposition and is reinforced by analysis in Section 3 of Oxera's report that shows trends in dividend payments between European gas and

[49] Moody's (29 July 2025). Sector in-depth: Broader policy uncertainty on energy transition increases business risks.
[50] S&P (July 2025) 'Four U.K. Gas Distribution Networks Ratings Affirmed Following Regulatory Draft Determinations; Outlooks Stable.'

electricity networks are diverging. Gas networks dividend yields are increasing, alongside lower asset growth, whilst electricity networks dividend yields remain stable alongside significant asset growth.

172 As shown in Figure 11 below (Figure 3.1 from Oxera's report), the average dividend yields for European gas networks has increased from 5.4% in 2018 to 8.5% in 2024, exceeding the average dividend yield of European electricity networks, which has remained relatively constant over the same period (between 4.1–4.8%). On average across the sample, the dividend yield has been consistently higher for gas than for electricity networks, and the gap has widened in recent years;

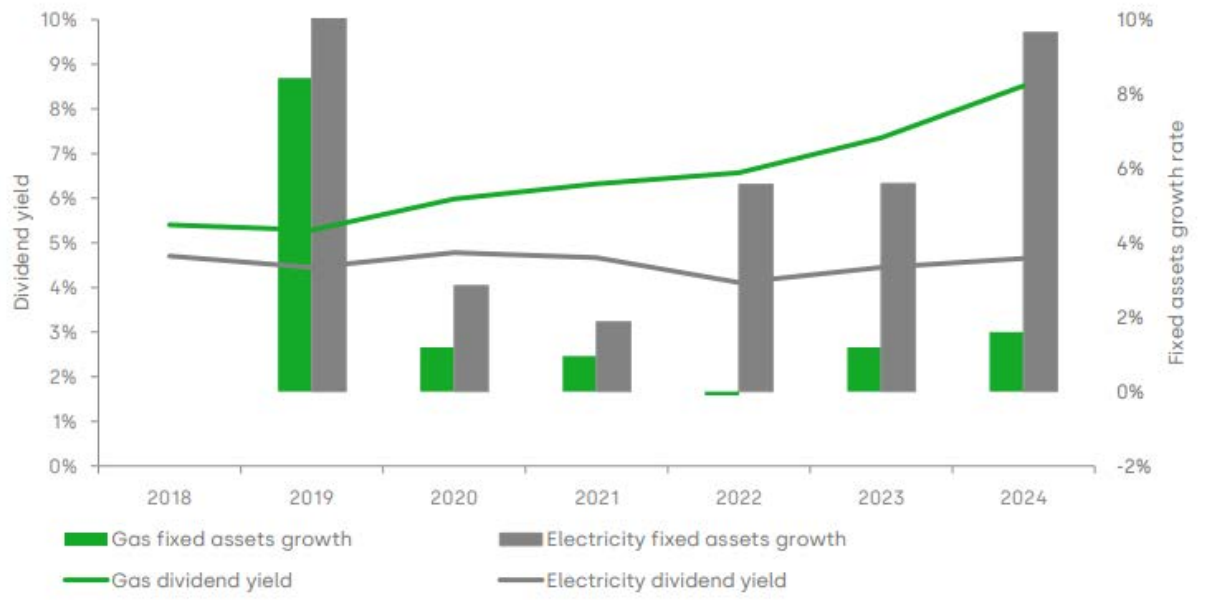
Figure 10: Dividend yield of European listed gas and electricity networks



Source: Oxera

173 This is consistent with the differential growth rates in fixed assets on these networks' balance sheets, with average asset growth of gas networks being consistently lower than that of electricity networks as shown in Figure 12 below (Figure 3.3 from Oxera's report);

Figure 11: Dividend yield and fixed assets growth



Source: Oxera

174 It is worth noting the average dividend yield of European gas networks shown has been consistently and significantly above Ofgem's 3% notional dividend yield assumption – which highlights that Ofgem's notional dividend yield assumption for gas networks is insufficient.

175 We understand from Ofgem that the reason why they haven't changed the notional company dividend yield at this stage is they are considering whether special dividends should be applied to return notional gearing to 60%. This is conflating the following two issues;

- is the notional dividend yield assumption closely aligned to the return on capital, ie cost of equity, given that RAV is not expected to grow materially?
- additionally, is there return of capital due to semi nominal WACC and accelerated depreciation policies causing an accelerated return of capital?

176 Additional dividends should be applied to allow the accelerated return of capital to equity investors, in addition to the notional dividend yield allowing the return on capital to be given to equity investors - given that RAV is not expected to grow materially. The accelerated return of capital should be split between equity and debt in line with notional gearing - to maintain the notional capital structure in line with the business plan BPFM guidance[51].

177 Ofgem proposes, in Para 3.110 of the DD[52], that 'special dividends' could be allowed if gearing were to reach a certain level. We note in the published Draft Determination BPFM that gearing has to drop to 55% for special dividends to be triggered to return notional gearing to 60% (albeit gearing then falls again in subsequent years). As set out in section 2.2 of Oxera's report, special dividends are generally the result of excess cash being temporarily available for distribution, for example due to a temporary increase in operational performance, or because of a non-recurring cash inflow (e.g. following a divestment) for which there is no alternative investment opportunity. This treatment of excess cash as non-recurring is inappropriate for GDNs, as the cash surplus that RIIO-G3 and beyond is expected to generate would be structural and recurring due to semi nominal WACC and accelerated depreciation policies. Therefore, this cash surplus should be returned through higher recurring additional dividend payments, as per the business plan BPFM guidance, meaning a threshold shouldn't apply.

178 Applying special dividends results in an inefficient dividend policy, as it leaves equity trapped in the notional company until the gearing threshold is met (if at all). [redacted] Indeed, to the extent that

[51] Ofgem (2024), 'RIIO-3_BPG_BPFM_Guidance v7', para 1.14
[52] Ofgem (2025), RIIO-3 Draft Determinations Finance Annex, para 3.110

accelerated depreciation can reduce asset stranding risk (see response to FQ17 and FQ24 regarding the limitations of accelerated depreciation in this regard), leaving equity trapped in the notional company means asset stranding risk can't be reduced at all. Adjusting the notional dividend yield would ensure the financial framework remains consistent with the evolving risk profile of gas networks and supports continued investor confidence.

179 As set out in section 2.1 of Oxera's report, ensuring the appropriate return on, and return of, capital is critical to ensure investability. We believe this is not just relevant for the gas sector, but for energy networks as a whole - given the likely contagion effect of not recognising the lifecycle stages of the sector. Mature or declining sectors with limited growth opportunities typically distribute more cash as dividends, rather than reinvest it in the business, while growing sectors retain more earnings to fund expansion, subject to potential minimum distribution expectations from their shareholders. This dynamic means that regulators should adopt flexible dividend assumptions that reflect sector-specific dynamics.

3.8 Flat WACC Approach

FQ15. Do you agree with our proposal not to apply the flat WACC approach?

180 We do not have a view on this question as we believe it is only applicable to the Electricity Transmission networks

3.9 Is the DD an Investable package?

FQ16. Do you agree that our proposed package for gas and electricity companies is investable?

181 We answer this question with respect to gas distribution networks. Firstly, we welcome that Ofgem intends to focus on developing an investable price control. For a price control package to be investable it needs to be based on a correctly calibrated CAPM Cost of Equity, sense checked by a wide range of cross checks, with a suitable cost of debt allowance and dividend yield assumption. Importantly, the proposed price control package also needs to provide an appropriate balance of risk in the immediate price control period and beyond to ensure it is a 'fair bet' i.e. the risk exposure is commensurate with the allowed return an investor should consider reasonable for an average performer in the sector operating in a specific network region.

Correctly Calibrated Cost of Equity

182 As set out in our responses to FQ7-FQ11, and FQ13, we don't believe the DD RIIO-GD3 Cost of Equity of 6.04% has been correctly calibrated, primarily as;

- the TMR does not take into account current market conditions
- the asset beta does not adequately take into account gas specific risks, particularly forward-looking risk
- given the lack of surety of recovery of the RAV and ongoing costs due to the significant level of uncertainty about the future of gas, the DD point estimate also does not take into account the non-systematic, asymmetric risks, that investors face.

183 We believe Oxera's RIIO-GD3 mid-point of 6.8% correctly recalibrates the DD cost of equity for the TMR and asset beta issues highlighted above, and then aiming up from this is required if the balance of risk in RIIO-GD3 and beyond, including the lack of surety of recovery of the RAV and ongoing costs, is not mitigated.

Cross Checks

184 As set out in our response to FQ12 we strongly believe that a more substantial set of cross checks are needed to cross check the cost of equity and TMR. [redacted] – and as such the Step 1 CAPM values should be revisited for the Final Determination in order to reach a more balanced position on investability. By contrast, the top end of Ofgem's CAPM range (6.96% CPIH-real) and Oxera's CAPM point estimate (6.84%) have much

greater overlap with the cross-check evidence. These CoEs therefore provide a more credible prospect as an investable proposition.

Correctly calibrated Cost of Debt Allowance

185 As set out in our responses to FQ1-FQ6 we don't believe the cost of debt allowance has been correctly calibrated, primarily because;

- The sector benchmarking needs to take account the lack of comparable data points in the gas cohort and the fact that Cadent has a very large weighting, by taking a simple rather debt weighted average of sector costs
- National Gas Transmission needs to be removed from the sample given NGT has less uncertainty around the impact of the Future of Gas due to its different role to the GDN's
- The gas premium on new debt needs to be correctly adjusted for tenor
- SGN is above the current sector average calculated by Ofgem through no inefficiencies. Given the significant weaknesses about the accuracy of Ofgem's sector average being able to accurately identify inefficiencies, our proposed adjustments will bring SGN closer to a more credible sector average.
- The DD additional borrowing costs proposal does not adequately take into account the costs of carry and infrequent issuance premium.

Dividend Yield

186 As set out in our response to FQ14, Ofgem's proposed dividend allowance policies for the notional gas company will send out a damaging message to equity investors. There needs to be a notional dividend yield assumption closely aligned to the return on capital (cost of equity allowance), as RAV is not expected to grow materially. Also, additional dividends should be allowed to enable the accelerated return of capital caused by the semi nominal WACC and accelerated depreciation policies. This return of capital should apply once gearing falls below 60%, not when it reaches a certain level, such as 55% in the published Draft Determination BPFM. In the BPFM after special dividends are triggered and notional gearing returns to 60% it immediately drops the next year but not to 55%, leaving equity trapped in the notional company impacting investability.

Balance of Risk

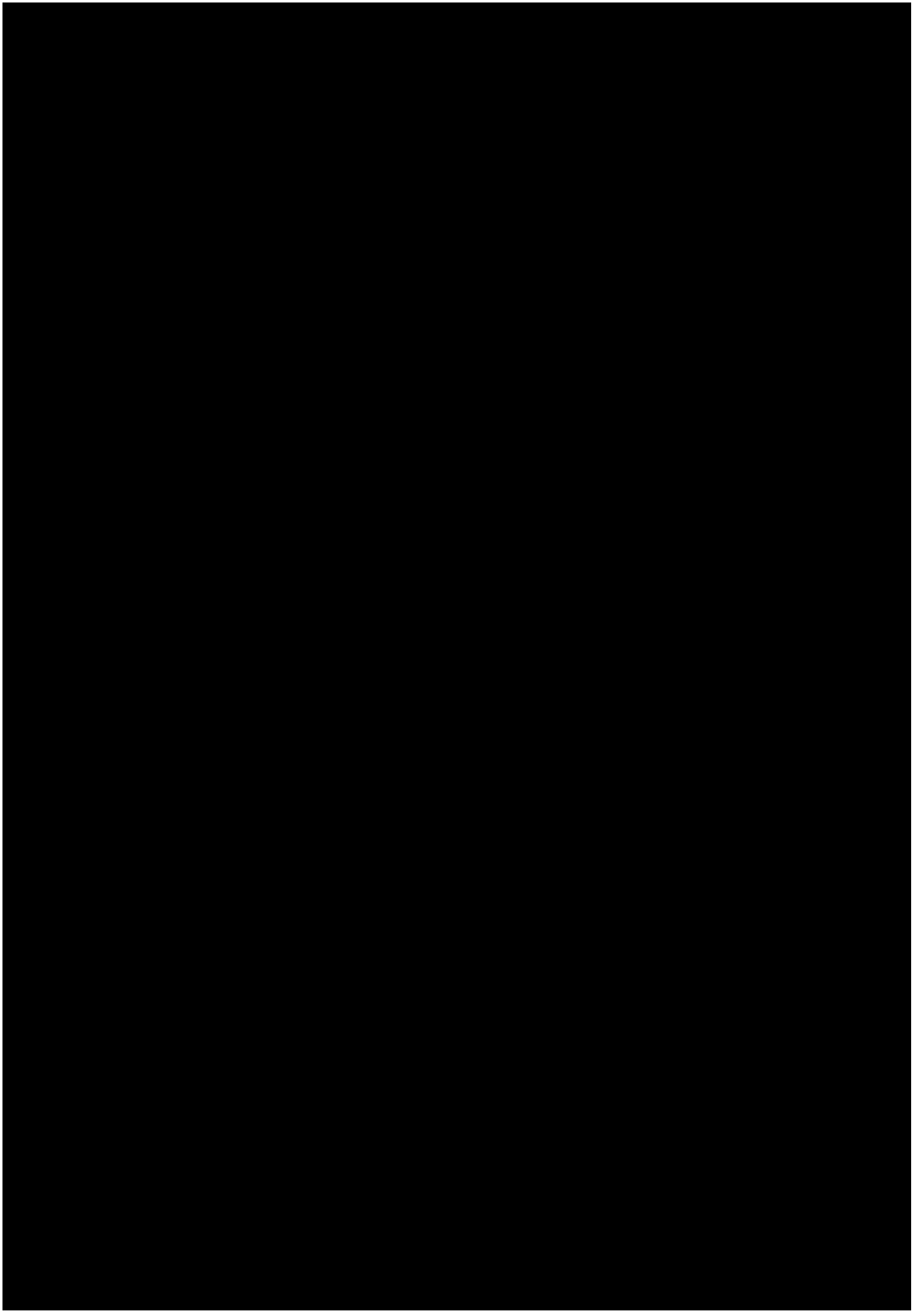
187 [redacted]

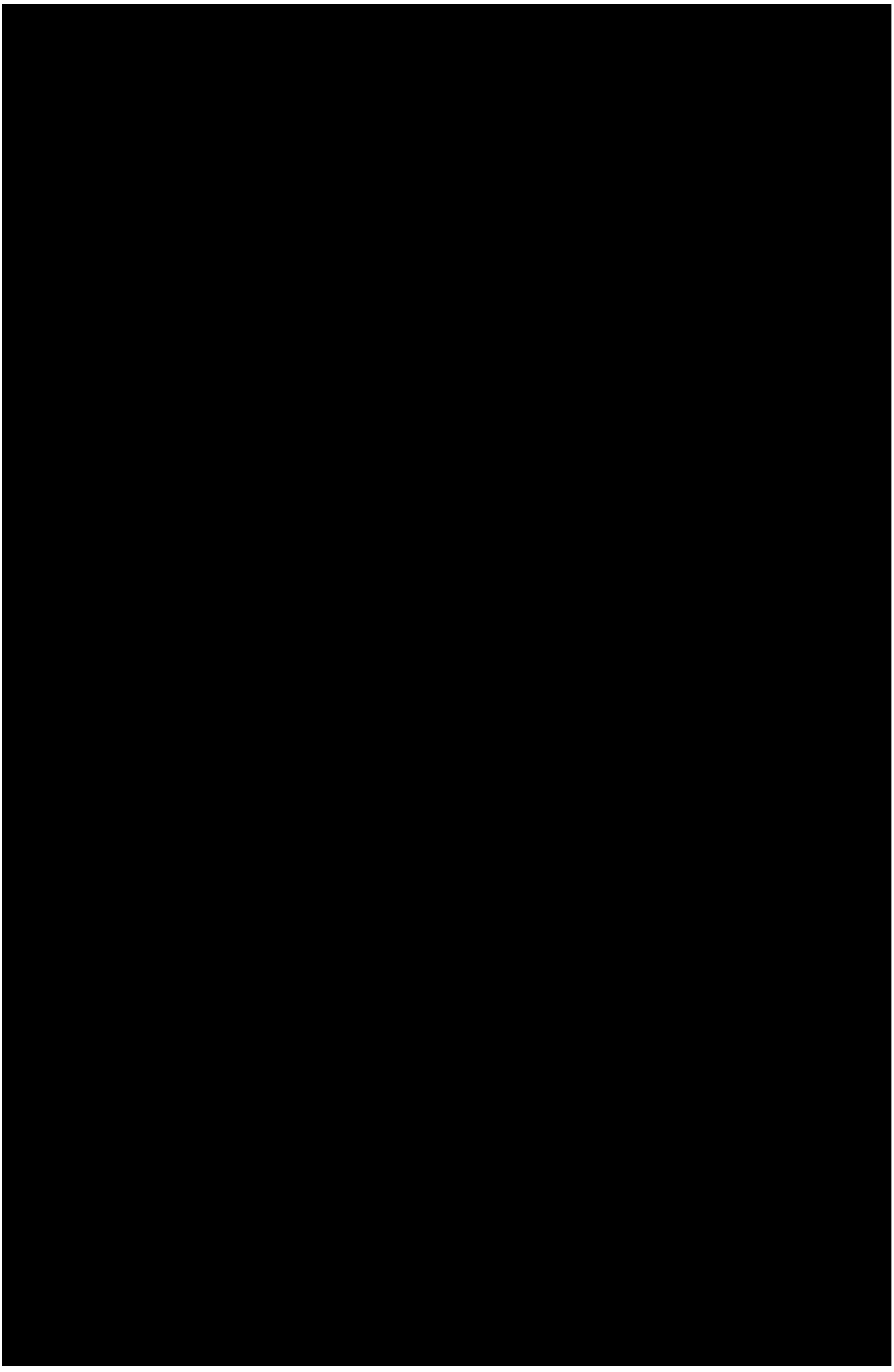
188

3.10 Consultation questions on Step-3

FQ17. Do you agree with our working assumption that there is risk symmetry within the aggregate balance of the whole price control?

189 [redacted]





[redacted]

Chapter 4 Debt Financeability

4.1 Ofgem's Approach to assessing Financeability

FQ18. Do you agree with our approach to assessing financeability?

237 **Ofgem have a duty to ensure that Networks can finance their licenced activity. In discharging this duty, Ofgem should take into account relevant factors on certain key parameters / drivers. They should also ensure the draft determination has the stated effect of attracting investors, set a fair return and financing activities to maintain a safe and reliable network which will ultimately minimise costs to consumers in the future.**

238 We believe the Draft Determination has not been subject to an appropriate risk assessment and has failed to adequately define plausible downside scenarios to test financeability or estimate the variances in returns available to equity investors to inform investability. Ofgem's analysis is assumptions and scenario-driven rather than grounded on an assessment of data-driven risk, whilst also ignoring key areas of finance and cost recovery, hence we believe they have not adequately assessed whether there is asymmetry in the Draft Determination; and the Draft Determination is not supported by an adequate impact assessment providing neither the analysis Ofgem said it would undertake in the SSMD[57] nor providing evidence of the apparent balance the Draft Determination position provides.

239 [redacted]

[redacted]

[redacted]

242 S&P have recently published an update following the DD and quote:

> *'We will assess the financial risk profiles of U.K. GDNs on the medial volatility table as of the next regulatory period and thereafter, pivoting away from the low volatility table. Given the uncertainties outlined above, we no longer view U.K. GDNs as operating at the lower end of the utility risk spectrum. Without regulatory support--including repurposing for renewable gases--these operators are unlikely to be able to maintain stable credit metrics or low funding costs as demand tapers over time. As a result, thresholds for operators with 'bbb+' stand-alone credit profiles (SACPs) will likely fall within the 13%-23% range (versus 9%-13% currently in the low volatility table); while those with 'bbb' SACPs will likely move within the 9%-13% range (from 6%-9% currently). We will re-assess our SACPs and ratings on GDNs and set precise calibrations within or around these broad ranges on a case-by-case basis following Ofgem's final determinations, due to be published in December 2025.'*[59]

243 [redacted] We would prefer the licence to reflect the latter definition but if Ofgem do not move, the BBB+ target threshold for the financeability should be higher for consistency – and it is more doubtful the notional company will achieve this level.

244 Moody's have also published a sector note in July 2025 and quote[60]:

> *"We see higher business risk for gas networks than electricity because gas network use will ultimately decline, whereas electricity networks are growing in support of the energy transition. The additional uncertainty associated with the detailed pathway and timeline to net zero as well as potential risks of future policy decisions and affordability constraints means that GB gas networks will have to exhibit a stronger financial profile to maintain existing credit quality" (p1)*
>
> *"We believe the risk of asset stranding to be small at this stage, but affordability considerations may ultimately constrain the speed of transition or cost recovery" (p3)*

245 We believe this also signals a differential risk position for Gas that will create further debt and equity financeability pressures, not fully covered in the draft determination cost of capital allowances.

246 Finally, we consider the DD is insufficiently transparent on the approach to financeability and investability. As above, we consider that Ofgem must be assuming in its DD that the RAV is in fact fully recoverable to reach the conclusions it has reached. This would need to be clearly stated as an assumption in FDs alongside clear evidence that Ofgem is working with government to provide the surety that this assumption will hold in practice, to support the best practice transparency principle.

4.2 Ofgem's Approach to assessing Financeability

FQ19. Do you agree with our proposal to adjust bucket 2 capitalisation rates from natural rates to 85% for all ET licensees to support financeability? Are there alternative measures that stakeholders consider more appropriate?

247 We do not have a view on this question as we believe this is a matter for ET and Ofgem.

[58] Ofgem (2025), 'RIIO-3 Draft Determinations - Finance Annex', para. 5.14
[59] S&P (July 2025) 'Four U.K. Gas Distribution Networks Ratings Affirmed Following Regulatory Draft Determinations; Outlooks Stable.', p2
[60] Moody's (29 July 2025). Sector in-depth: Broader policy uncertainty on energy transition increases business risks.

FQ20. Do stakeholders have views or evidence on long-term financeability considerations, including the appropriateness of the proposed asset lives?

248 With regard long term financeability, we believe Ofgem's analysis is not robust enough to properly assess the issues facing gas networks. By merely projecting long term AICR ratios as flat into RIIO-GD5 ignores fundamental long term financeability challenges:

- Firstly, there must be an implicit assumption that future affordability issues with bills can be resolved and the notional company can recover all revenue – we ask for an explicit assumption is made in the Final Determination that in order to conclude the package is financeable, full cost recovery is assumed.
- Secondly, the analysis ignores the impact that shorter tenors will have on refinancing / maturity concentration risk and this is covered in detail in KPMG's report RIIO GD3 Draft Determinations – Risk analysis for a notional GDN (SGN-GD3-DD-ECR-26), and the answer to FQ17.
- Thirdly, as RAV will drop faster than Totex, this produces greater risk as the lower equity buffer provides less protection to Totex risk, increasing financeability concerns – we covered this point in detail in our business plan submission[61]

249 [redacted]

250 A clear statement of surety of cost recovery and a regulatory framework that supports the challenges faced in the gas industry is essential to secure longer term financeability. Clear messaging in the FD to this effect, and an overarching principle that DESNZ will adopt in their review of the gas sector, will be a very positive start to ensure investor confidence is maintained.

251 In relation to assumptions on asset lives, as we do not consider that accelerated depreciation on its own addresses either the affordability or the cost recovery risk, a full review of the regulatory framework, including cost recovery mechanism and a clear principle that efficient gas networks can recover all its costs / RAV are essential principles underpinning the forthcoming DESNZ review.

Chapter 5 Financial resilience

5.1 Ofgem's Approach to assessing Financial Resilience

FQ21. Do you agree with our proposal to implement the Financial Resilience measures as laid out in our SSMD and the proposed methodologies set out above?

252 We have a high level of financial resilience. In the Draft Determination, Ofgem have confirmed their desire to introduce some tightening of the financial resilience requirements, as follows;

Absolute Requirement to Maintain Two Investment Grade Ratings

253 We consider the absolute requirement for licensees to ensure they have two investment grade credit ratings to be disproportionate. The Moody's recent downgrade of the stability and predictability of the regulatory environment, for the water sector, to A from Aa shows the risks of putting an absolute requirement on rating agency actions beyond the control of companies.

254 Going forward, Gas Networks are much more exposed to negative rating actions due to policy decisions out with their control. The absolute requirement puts companies in a position where they cannot control compliance of the licence. As set out in FQ18 (debt financeability), we do not believe Ofgem's DD analysis of expected ratings for the notional company are supported by the evidence.

[61] SGN Business Plan Finance Annex, Section C.1 Accelerated Depreciation, p19

255 Therefore, we believe the current licence wording for RIIO2 which does not place an absolute requirement is more appropriate. This should not weaken the strength of this licence condition as Gas Networks are strongly incentivised through their debt covenants anyway.

256 If Ofgem were to tighten the financial resilience requirements, it would be important to ensure the appropriate ratings are referenced, considering methodological differences between the CRAs and the intent behind the different ratings. Credit ratings inform expected loss to debt investors, considering both probability of default and loss given default. Consequently, in respect of Fitch and S&P, we consider the senior unsecured ratings to be the appropriate ratings to monitor, rather than the issuer ratings which do not consider Fitch's generic sector uplift - which acknowledges above average recovery expectations for regulated networks.

257 Ofgem have indicated they intend to capture the creditworthiness of an entity rather than of a particular class of debt and this is why they have Fitch's Issuer Default Rating (IDR) in the licence, which drives compliance such as a dividend lock or breach where investment grade status is lost. While this logic is correct, and there could be instances when different classes of debt benefit from structural and contractual protections and security and therefore get a higher rating than an entity would, this is not the case for unsecured debt ratings. Unsecured debt ratings are usually aligned with the issuer's credit quality, and the fact that Fitch's unsecured debt rating is one notch above the IDR for the UK regulated utilities is solely due to the specifics of the rating methodology and not due to the structural or contractual features of debt.

258 Unsecured debt rating could be split into two components: (1) probability of default (a chance that an entity defaults) and (2) recovery of investor capital at default (proportion of the capital returned back to debt investors). While for Moody's the Corporate Family Rating evaluates both of these simultaneously, for Fitch IDR only reflects the probability of default.

259 Empirical data demonstrates that debt investor recovery tends to be above average (above 50%) for regulated utilities, and hence an additional rating notch is warranted to reflect that, which is added to the IDR to arrive at the unsecured debt rating. It follows that the unsecured debt rating from Fitch appropriately captures the creditworthiness of a regulated utility, and this definition should be used in the licence.

Implementation of a 75% Gearing Threshold

260 We consider the implementation of a 75% gearing threshold to be inappropriate as CRAs consider ratings in the round, considering both business and financial risk as assessed by a suite of credit metrics, rather than on the basis of a single ratio. Furthermore, we do not consider the need for an upper gearing threshold is well evidenced in the energy sector, nor the decision to reduce the threshold from 80% to 75%.

261 We do not believe this intervention achieves Ofgem's objective of increasing financial resilience. Although we do not expect gearing to be above that threshold in GD3, the perception of further regulatory intervention on gearing – an area which has historically been considered in the control of companies and their shareholders – may adversely impact equity investability of the sector. This is more likely to be the case where investors perceive that the threshold may further reduce in the future, which could be inferred from the reduction between consultation and decision. We will consider Ofgem's decisions on financial resilience in the round when licence changes are set out.

Availability of Resources

262 Although we are unclear how Ofgem propose to introduce changes to the availability of resource licence condition, any change which increases liquidity requirements needs to be included in the additional borrowing cost allowance. In response to FQ4, we set out what we consider to be the appropriate quantum of debt relating to advance funding and also the pricing of this – overall, we believe cost of carry, together with revolving credit facility costs should be funded by 31bps on the cost of debt allowance. It is important, views of credit rating agencies regarding liquidity requirements are also taken into account.

263 Ofgem also reference "the agreed assumptions"[62] - we would argue that it would be more appropriate for the board to consider appropriate assumptions as these will necessarily be company-specific.

[62] Ofgem (2025), 'RIIO-3 Draft Determinations - Finance Annex', para 6.1

Conclusion

264 In conclusion, Financial Resilience is protected first and foremost by having in place an appropriately calibrated regulatory package – we do not believe the package is appropriately calibrated as set out in FQ16 and FQ17. Secondly, Ofgem have stated in their DD that companies have not provided new evidence or rationale to support views made in the SSMD. We would counter that Ofgem has not provided evidence to dismiss our concerns. We do not believe that sufficient time and space has been given to consideration of the evidence of these issues by all parties and this GD3 process is not the appropriate vehicle to conclude on financial resilience issues. We believe the Regulatory ring fence review by Ofgem later this year is the appropriate process to assess these proposals. If decisions are made post draft determination before this review has taken place, we question the purpose of such review.

Chapter 6 Corporation Tax

FQ22. Do you agree with the proposed position that by including robust protections within the Price Control Financial Handbook, a tax forecasting penalty is not required?

265 We agree that protections, such as the tax reconciliation process and tax trigger events, mean a tax forecasting penalty is not required. Since 2023, GDNs have been required to report, in detail, the variance between their allowed and actual tax – explaining any material variances and getting board assurance on this. Tax trigger mechanisms mean that tax allowances can change with legislation, legal precedents, changes to HMRC interpretation of legislation and changes in accounting standards. These are both robust protections that mean tax forecasting penalties are not required.

266 We agree it would take significant multiyear variances in tax pool allocations to make a significant difference to allowed revenue. However, we would welcome Ofgem and networks working together where there are any specific areas of concern, to develop proposals on how to improve forecasting or transparency.

267 Notwithstanding these important points, Ofgem are proposing a revenue forecasting penalty. Many of the variables impacting revenue also impact tax allowance, so there would be a significant risk of double counting any perceived forecasting errors if a tax forecasting penalty was implemented.

268 We do seek clarity on the proposed updates to the Price Control Financial Handbook (PCFH) to include clarifications regarding the notional company and Price Control Financial Model (PCFM) input values. Paras 7.81 and 7.82 of the DD Finance Annex[63] state;

'The PCFH has been updated to expand the description of the concept of the notional efficient company, making it explicit that PCFM variable values, such as tax pool allocations, must be updated on the basis of the behaviour of a notional efficient company.'

'The PCFH has been updated to make Ofgem's current view explicit, that a Tax Review may be undertaken where a material unexplained variance would have arisen had the PCFM variable values been updated in line with both Ofgem guidance and the behaviour of a notional efficient company. This is necessary to prevent the deliberate manipulation of PCFM variable values in a way that is contrary to the behaviour of a notional efficient company.'

269 We have previously expressed that we're unclear what the PCFH changes, to emphasise the notional nature of the tax allowance inputs (PCFM variables), actually mean and what is driving them. Therefore, we welcome para 7.17 of the DD Finance Annex, where in the context of updating the PCFM variables, it states; *'[Ofgem] aim to provide more detail on what the notional efficient company means in practice.'*

270 We would ask that this clarification be provided in the coming weeks, and then networks are consulted on this issue ahead of Final Determination.

[63] Ofgem (2025), RIIO-3 Draft Determinations Finance Annex, para 7.81 and 7.82

FQ23. Do you agree definitions for ANDt and TDNIt should be updated to reflect the principles outlined in paragraph 7.41?

271 We agree that the definitions for Adjusted Net Debt (ANDt) and Tax Deductible Net Interest Costs (TDNIt) should be adjusted to reflect the principles outlined in para 7.41 of the DD Finance annex[64], namely seeking to;

- align TDNI with the tax deductions arising in the licensee's actual tax return and statutory accounts as closely as practicable.
- minimise the ability of licensees to prevent the clawback from applying by group tax elections or accounting choices
- ensure that only 'real' financing amounts relating to the funding of the business are included, not other amounts which are re-categorised as interest for accounting presentation purposes

Chapter 7 Regulatory Depreciation

7.1 GD Draft Determinations position

FQ24. What are your views on our proposal to accelerate depreciation for new assets only in GD and is there any further evidence you would like us to consider before we reach a final decision?

272 In the Draft Determination, Ofgem has proposed the implementation of Option 4 from the SSMD, which depreciates new assets using sum of digits by 2050 and leaves the approach to depreciation of existing assets unchanged.

273 Ofgem has based its proposal on its view that[65]:

- Doing nothing in RIIO-GD3 would not deal with customer fairness over time;
- Stabilising or reducing RAV over RIIO-GD3 (by setting goal of reducing RAV by 2050) was premature given the likely level of customer numbers in RIIO-GD3;
- It provides flexibility to respond to government policy decisions;
- It signals to markets that it is taking measured action alongside Government to address long-term risks

274 However, this proposal does not meet the current needs for RIIO-GD3 nor the objectives set by Ofgem itself as it:

- Fails to have the stated effect of materially reduce the risk of asset stranding;
- Fails to provide confidence on full recovery of the RAV for investors;
- Does not provide protection for customers from long-term bill increases;
- Has not demonstrated to be in the interests of, or fairer to, customers (including today's and future customers);
- Does not set out a path for the changes in the regulatory framework needed when the RAV declines relative to the ongoing costs of the network.

275 It therefore fails to achieve its stated objectives and for Ofgem to discharge its financeability duty because Networks risk being unable to attract/retain investment and therefore finance their functions as a result.

276 In addition, its approach lacks analytical basis and results in inconsistent treatment of assets. Furthermore, Ofgem's Impact Assessment fails to consider the key legal requirements in terms of the implications of the proposals on the regulated networks. Nor is there any compelling evidence of the following being carried out - which was specifically committed to and set out by Ofgem in its Impact Assessment as part of SSMD "*We will*

[64] Ofgem (2025), RIIO-3 Draft Determinations Finance Annex, para 7.41
[65] Ofgem (2025), RIIO-3 Draft Determinations Finance Annex, para 8.39-8.41

consider both the net zero impacts as well as distributional impacts before setting the rate of accelerated depreciation for gas at Draft and Final determinations"[66].

277 We consider each of these areas in more depth in the following sections.

Fails to have the stated effect of reducing the risk of asset stranding

278 Ofgem has proposed the introduction of Accelerated Depreciation for new assets in GD3 in order to reduce the risks of Asset Stranding. However, as set out in our Business Plan and again below, Accelerated Depreciation in general and Option 4 in particular cannot materially address the risk of stranding, particularly if transition is to occur by 2050.

279 We have considered, using the holistic and falling behind (counterfactual) scenarios from the latest FES scenarios, the impact on RAV recoverability of the existing deprecation policy and the proposed adoption of Option 4. The level of RAV recoverability is limited by the ability of customer to pay. In undertaking the analysis, we have used an assumption that customers can pay no more than £400 per domestic customer

280 Option 4 does not make a material difference to the level of RAV recoverability and leaves a substantial RAV / Revenue (£14.3bn) as unrecoverable in 2050 under the holistic scenario.

Confidence in full recovery of RAV and other costs

281 It is acknowledged by all (including reaffirmation in the recent government statement) that natural gas will continue to play an essential role in providing energy to households and businesses for many years.[67] The ongoing investment and the continued support of jobs in the sector, and downstream, will make a significant contribution towards Ofgem's growth duty. Natural gas will play an important role in the transition to Net Zero and certain assets may be repurposed for use in hydrogen or CO_2 networks.

282 It is therefore crucial that a long-term view is taken when considering the investability and financeability of the gas networks to ensure they are fully able to provide essential services to customers.

283 A key element of this is to ensure that there is confidence in the recovery of the RAV and ongoing investments and costs. The DD appears to recognize this requirement, but it does little to support it.

284 In the SSMD, Ofgem made a number of supportive statements about the need for RAV recovery e.g. *"We…have decided to take forward proposals to further accelerate depreciation of past investment* ***and plan for the full value of the RAV to be returned ahead of the government's net zero targets"***[68] (emphasis added**).** Whilst we have proposed an alternative mechanism for accelerated depreciation, the clear plan and intent to provide a framework for **full recovery of the RAV** is not replicated in the DD. This statement should be reinstated.

285 It is important that Ofgem, as the economic regulator for the sector, sets out the economic longer-term assumptions even if they are not fully within its locus to provide. It has in the DD stated that the DD is financeable[69]. [redacted]

286 We assume that Ofgem is relying on statements such as those by DESNZ that "*..the government wants* ***to reassure the sector*** *that we recognise the importance of this challenge and are committed to* ***working closely with them and the regulator*** *to identify solutions that* ***ensure ongoing and long-term investment****. The aim is to transition the gas network in a way that is fair and affordable for all energy consumers, aligning long-term energy security with* ***investor needs and expectations*** *throughout the transition to net zero."* [70] (emphasis added) in order to support its assumption. The corollary is that without any grounds for such an assumption the DD would not be financeable and Ofgem would be failing in its financeability duty.

287 It is important to recognize that the financeability duty does not apply solely to the RIIO-GD3 period and should have regard to Networks' long term investability which is relevant to the Network's ability to finance their activities in GD3 and that the changes Ofgem makes to the license will have long term implications for current and future customers. Therefore, the license modifications which Ofgem will propose, apply not solely to GD3

[66] RIIO-3 Sector Specific Methodology Decision – Overview Document, A1.30
[67] "The gas network continues to play a vital role in the UK energy system—keeping homes and businesses safe and warm, supporting resilience, and enabling the transition to net zero. To remain safe, reliable and affordable, it requires ongoing investment" – UK government update – 30 June 2025
[68] RIIO-3 Sector Specific Methodology Decision – Finance Annex, para 1.24
[69] RIIO-3 Draft Determinations – Finance Annex, para 5.63
[70] 30 June 2025, Midstream gas system: update to the market, ministerial foreword.

but must in either being accepted or challenged be assumed to remain in place in perpetuity pending any subsequent modifications. In addition, Ofgem has also acknowledged the importance of stability longer term[71]. The price control is effectively a set of revenue restrictions recognizing the natural monopoly nature of the provision of gas distribution services. The only means by which Ofgem can secure the recovery of capital expended in the RAV would be either:

- to lift the revenue restrictions to such a level that all of the capital would in fact be recovered;
- provide for an uplift in cost of equity which provided for any expected level of default on recovery of the RAV; or
- to clearly state, with evidence to support the assertion, that the RAV will in fact be recoverable.

288 The level of uplift to the cost of equity to compensate for the expected level of stranded risk would be significant at c1.7% as set out in more detail on the RIIO GD 3 Draft Determinations – Risk analysis for a notional GDN and FQ17.

289 Given the importance and fundamental nature of the recovery assumption to the delivery of Ofgem's financing duty it is important that the FD states the assumptions and basis on which the assumption is made - i.e. that the financeability of the determination and the level of cost of capital are dependent on Ofgem and the Government between them ensuring that the RAV is fully recoverable.

290 It may be that a portion of RAV recovery will come in the form of the sale of certain assets to be repurposed for use in other networks, e.g. hydrogen. However, any reuse is at this stage very uncertain and in any event does not impact on the general principle that full recovery of the RAV needs to be assured collectively by Ofgem and Government.

Protection of customers/fairness for customers

291 Ofgem recognizes that the reduction in natural gas customers following a policy decision to transition from natural gas to electricity or other sources of heating could result in increased prices for customers.

292 It also claims that the DD proposal to accelerate depreciation for new investments will help in this respect "*…ensure fair treatment between current and future consumers*."[72]

293 However, the impact of the DD proposal is to increase prices in RIIO-GD3 but do nothing material to mitigate the longer-term significant increase and higher level of customer prices, if customers numbers fall rapidly.

294 It is not clear therefore how Ofgem has assessed fairness or the impact that the proposed policy change would have on fairness.

295 In the SSMC, Ofgem stated that it would *"…consider both the net zero impacts as well as distributional impacts before setting the rate of accelerated depreciation for gas at Draft and Final determinations."* The draft determination does not provide any evidence that this analysis has been undertaken or if it has how it has influenced the draft determination proposal.

296 As part of the SSMD Ofgem set out "*The key principle for intergenerational fairness is that the rate of depreciation should be set so that different generations and types of consumers pay network charges broadly in proportion to the value of network services they receive.*"[73] One view of fairness consistent with this would be that customers today and, in the future, would pay the same per year for using the network. Such an approach would entail a significant increase in prices today if the holistic pathway was considered the right approach. The average depreciation charge per customer would increase to £151 (23/24 real) in GD3 from c.£55 in FY26, an increase of nearly 300%.

297 We do not believe Ofgem has in fact carried out the analysis as to what would ultimately constitute 'fairness' despite Ofgem stating within the DD that this represents a basis for the decision, and the fact Ofgem has not followed up on its commitment to consider distributional impacts as part of the Impact Assessment at SSMD.

[71] RIIO-3 Draft Determinations – Finance Annex, para 5.14
[72] RIIO-3 Draft Determinations Overview Document – Executive Summary – pg. 13
[73] RIIO-3 Sector Specific Methodology Decision – Finance Annex, para 8.4

Why the SGN Trigger Mechanism is a Superior Option at this Juncture

298 As Ofgem notes, there is considerable uncertainty over the future levels of demand for natural gas, which would make their accelerated depreciation proposal premature as current levels of switching away from natural gas do not justify the increase in bills that would ensue.

299 SGN proposed a trigger mechanism to deal with this uncertainty over gas customer numbers and profile to transition natural gas heating to alternative fuels. This is where SGN's trigger mechanism has a strong advantage over other approaches including Ofgem's Option 4.

300 The DD has mis-characterised the SGN mechanism as representing a no change option[74]. This is not true. It would be more correctly described as an option to introduce gradual and responsive change. This is because the SGN Trigger has been designed to respond to actual customer switching and introduce a level of accelerated depreciation that reflects actual changes in customer numbers and will set that level dynamically i.e. based on actual experience in contrast to the fixed *ex-ante* approach set out in Ofgem's options. If there is a significant rate of reduction or decline in customer numbers between now and the end of the RIIO-GD3 period, the SGN trigger would have the potential to increase the rate of RAV recovery and accelerated depreciation relative to the proposed Ofgem Option 4.

301 Compared to option 4 and assuming customer numbers outturned in line with the Holistic Transition scenario, the Trigger mechanism (without equalization for implied customer years remaining) would produce lower per customer depreciation charges in GD3 and GD4, as set out in table 12 below. The Trigger mechanism with equalization would produce higher per customer charges in GD4 but avoid very high charges in later periods that would arise under Ofgem's option 4, as it would more closely align total depreciation in each period with implied customer years remaining.

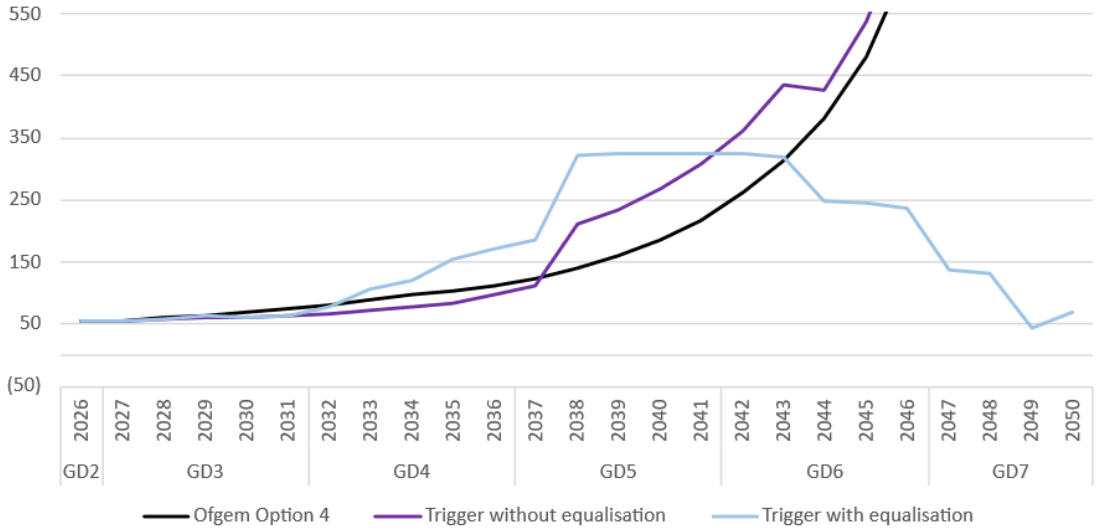
Table 12: average depreciation charge per customer by price control period, Holistic Transition (£ 23/24 real)

	GD3	GD4	GD5	GD6	GD7
Ofgem Option 4	65	96	166	413	2,031
Trigger without equalization	60	79	227	492	949
Trigger with equalization	61	126	297	274	95

Source: SGN Analysis

302 Figure 15 illustrates the trend in depreciation charge per customer over time under the three scenarios, demonstrating that the Trigger mechanism with equalisation results in a much smoother – and fairer – profile, considering the much-reduced customer base in later periods under the Holistic Transition scenario.

Figure 14: average depreciation charge per customer by year, Holistic Transition (£ 23/24 real)



Source: KPMG

[74] RIIO-3 Draft Determinations – Finance Annex, para 8.34

303 If, instead of the Holistic Transition, the counterfactual scenario transpires, there would be a high cost of implementing accelerated depreciation from the start of GD3 under Ofgem's option 4. The present value of the depreciation plus risk related return component of residential customer bills to 2050 (assuming a 3.5% social discount rate) would be significantly higher than would have been the case with the existing depreciation approach or the Trigger mechanism, as the dynamic nature of the Trigger would not accelerate depreciation where it was not warranted by the customer profile[75].

304 The Trigger mechanism is therefore a superior mechanism in that it only triggers accelerated depreciation when it is required, and to the extent that it is required, is fairer to customers and provides investors with better long-term clarity.

305 Ofgem criticizes the trigger mechanism on the basis it leaves the issue of repaying the RAV to customers remaining on the network rather than fairly attributing the historic costs to gas network users. In making this statement Ofgem appears to be making a judgement or assessment as to 'fairness' although no analysis or analytical or quantitative basis has been set out to support such an assessment. We have already shown above how a 'fair' allocation of network usage charges would result in significantly increased bills in RIIO-GD3, and how even then it would not result in surety of full recovery of RAV and would be likely to give rise to distributional impacts.

306 Ofgem also states that the SGN Trigger does not allow adjustments to the depreciation policy based on government policy decisions that may drive foreseeable future electrification. We agree that the SGN proposed approach is not one of perfect foresight but rather responsive to actual changes in network utilisation. However, the proposed Ofgem Option 4 on its own will not solve the future affordability issues were Holistic Transition to transpire and cannot therefore represent a suitable policy in such circumstances with Holistic Transition representing the scenario and assumptions which underpin the RIIO-3 draft determinations and Networks' business plans. However, we also note the best available information on expected forecast gas usage (published in the FES Scenarios 2025 post the publication of the Draft Determination) suggests a 10-year forecast, in terms of gas usage, significantly closer to the counterfactual scenario than to that of Holistic Transition therefore further supporting a more responsive mechanism.

307 Ofgem highlights that the SGN mechanism could result in volatility - however, any volatility could be moderated through smoothing approaches (such as end of review true ups) if required and can be contrasted with volatility to reflect changing facts/circumstances versus rigid stability based on incorrect assumptions.

308 While it does not solve all the issues associated with stranded assets – as no depreciation policy can on its own – it has the benefit over Ofgem's proposed option 4 of waiting until there is evidence from customer switching of the need to introduce any form of accelerated depreciation and then applying a consistent approach to all assets.

309 While the trigger mechanism is a superior approach – it should be clear that no accelerated depreciation mechanism on its own can provide the fairness to customers or certainty over RAV and cost recovery that investors require in the event that there is full transition by 2050.

Longer-term changes to regulatory framework are required

310 The DD has considered longer-term projections in considering credit metrics but has not really considered the longer-term implications of an accelerated depreciation profile while Totex levels remain broadly steady.

311 The analysis provided by SGN in its business plan[76] demonstrates that as customer numbers fall the level of totex remains high, while the RAV falls more rapidly. There will also be increasing issues with debt tenors as the revenues available to support and repay them fall.

312 Both issues highlight that the regulatory framework will need to adapt to changing circumstances. We note that the Government review on the future of gas highlights that *"…there are credible longer-term alternatives to support cost recovery—including those that could distribute costs more fairly—and with coordinated action, and a key role for government, there is time to develop balanced and sustainable solutions. Now is the right time to explore these options with the sector and ensure the system remains fair, resilient, and fit for the future."*[77]

[75] Analysis carried out by KPMG. SGN would welcome the opportunity to further engage with Ofgem on the analysis of the impact of Ofgem's proposed option 4 relative to that of the SGN trigger mechanism.
[76] SGN Business Plan Finance Annex, Section C.1 Accelerated Depreciation
[77] 30 June 2025, Midstream gas system: update to the market

313 The update also highlights that *"an alternative financial model will take time to identify and roll-out".* However, the DD makes no mention of this requirement or explores the longer-term term potential impacts on the regulatory framework.

314 While we support Ofgem's recognition of the need to consider financeability over the long-term to meet its statutory financing duty this should include the need to have regard to networks' long term investability which is relevant to the network's ability to finance their activities in GD3 and the importance of a stability in the long term. However, the longer-term financeability assessment in the DD is shallow (as set out in more detail in response on financeability FQ20) and does not take into account the longer-term issues with the regulatory framework.

315 As the economic regulator for the sector, it is important that the longer-term consequences are considered to help provide confidence for investors in the longer-term arrangements that provide for cost and investment recoverability.

Option 4 lacks a robust analytical basis and results in inconsistent treatment of assets

316 The proposal to introduce option four seems to be based on the view that it has the least impact of the options considered at SSMD. However, we believe Option 4, which only depreciates new assets and leaves existing assets on the current depreciation timeline which goes beyond 2050 for some assets lacks robust analytical justification.

317 Ofgem reaches the conclusion that it would be premature to set 2050 as a date for the full depreciation of GDN assets, based on the current evidence for the level of switching. SGN agrees with this conclusion and has consistently stated that there is insufficient evidence to introduce accelerated depreciation at this stage and proposed a mechanism which is rapid and responsive in its adoption should the evidence support the need for the introduction of such a policy.

318 However, Ofgem introduces accelerated depreciation for new assets only from 2026, which:

- Is not based on any evidence of need
- Creates an inconsistency with existing assets so that new assets will be depreciated faster than assets built up to 20 years ago
- Increases bills for customers in RIIO3 (potentially needlessly)
- May potentially pre-judge or reduce policy options for the Government review

319 Therefore, Ofgem risk creating confusion when they should be providing the clarity that investors and customers need.

320 Ofgem states that this policy will "…fairly distribute the cost of historical network investments between current and future consumers"[78] which we believe it will not, as it does not apply to historical investment, and that it will "…ensure fair treatment between current and future consumers", which again it won't as it makes a trivial impact on future prices. Fairness is not explicitly or comprehensively discussed, nor is there any consistency in relation to inter-generational fairness with that applied elsewhere with the Draft Determination package. Ofgem is effectively proposing an approach to regulatory depreciation in Gas Distribution which is driven by network utilization whilst at the same time proposing an approach at both ET and GT where the basis of depreciation policy is effectively largely invariant to utilization, on a 'fairness' basis. For example, in electricity transmission there is significant investment in new investment that like any new infrastructure will be less fully utilised in the early years following construction, yet the proposed recovery is invariant to utilisation. Ofgem should more clearly set out how it proposes to apply fairness to todays and future customers and apply it consistently.

321 Ofgem also states that the adoption of Option 4 will provide confidence to investors. However, without any changes to address the underlying risk – that there will be insufficient gas customers to pay the required bills – and absent (in the draft determination) any strong supportive statements over asset and cost recovery and without any uplift in the cost of equity, there is a risk that Ofgem's actions exacerbate investor concerns (rather than alleviating them). The policy change therefore fails to achieve its stated objectives and fails to have the stated effect.

[78] Overview document

Impact of uncertainty on cost of capital

322 The uncertainty surrounding the future of natural gas and the lack of clear statements from Ofgem and government over recovery of RAV and costs are already having an impact on the cost of capital of GDNs.

323 This is already reflected in the cost of debt where tenors are shorter and premium over iBoxx indices are higher than for electricity as already recognized by Ofgem. As the equity and debt investors are investing in the same assets – it is inconceivable that the increased risk, recognized by Ofwat for debt investors, does not also apply to equity investors. If anything, the risks are even greater for equity as debt holders have priority over repayment. The longer the uncertainty persists, the higher the impact will be on the cost of capital.

Government call for evidence

324 In its Update on Midstream gas, DESNZ has indicated that it understands the key issues facing the gas industry and the need for clarity over future regulatory arrangements that lead to surety over RAV and cost recovery that in turn support financeability and investability in the sector and hence the transition to net zero[79].

"Currently, the cost of maintaining and operating the network does not fall in proportion to the number of users. At the same time, investors need confidence that they will get a fair return on their investment, including money already spent on the network. Combined, this could create a more challenging environment for investment and in the longer-term could increase the risk of higher costs for the remaining gas users. Therefore, it is important to ensure the right conditions for continued investment, helping to maintain a resilient gas network that can continue to meet demand and operate safely throughout the transition to net zero, while also ensuring that this transition is fair and affordable for all energy consumers"

325 The outcome of this DESNZ review will play a significant part in allowing Ofgem as the economic regulator of the sector to achieve its financeability duty as well as setting the trajectory for the future economic regulation of the sector and recovery of gas network costs.

326 It is therefore essential that Ofgem take a lead in responding to the call for evidence, setting out the need to ensure confidence in RAV recovery and future costs and that this cannot be achieved through natural gas customers alone in circumstances where transition takes place by 2050. We believe Ofgem needs to work with the industry to develop agreed analysis that highlights these challenges. SGN is keen to work closely with Ofgem in putting forward the appropriate analysis.

327 The Government update has highlighted that alternative arrangements can be considered – *"there are credible longer-term alternatives to support cost recovery"*[80]. It is essential that Ofgem and GDNs take the opportunity to develop an approach that works over the longer term to provide the surety of RAV and cost recovery that is required for investors, and provides fairness for customers, particularly those that are vulnerable or remain on the network for longer. and allows the achievement of net zero for the benefit of society.

Impact Assessment

328 In the SSMD, Ofgem stated that "We will consider both the net zero impacts as well as distributional impacts before setting the rate of accelerated depreciation for gas at Draft and Final determinations"[81]

329 We can see no evidence in the DD relating to this assessment. Instead, the DD contains assertions of fairness to customers and support for net zero and investors that appear unevidenced. The impact assessment that Ofgem has performed also fails to consider the key legal requirements in terms of the implications of the proposals on the regulated networks.[82]

330 It is unclear from the DD how Ofgem has assessed 'fairness' to customers. No assessment of what is 'fair' or 'appropriate' in terms of recovery of costs from todays or future customers is set out.

331 While the duty is on Ofgem to perform a comprehensive impact assessment, our view is that:

- In respect of fairness to customers, the superior approach of the SGN trigger mechanism cannot be ignored. As set out above a mechanism responsive to actual customer behaviours, such as the SGN Trigger mechanism, would improve fairness over option 4 through being more dynamic in responding to changing information on the need for, and quantum of, accelerated depreciation based on actual

[79] 30 June 2025, Midstream gas system: update to the market
[80] 30 June 2025, Midstream gas system: update to the market
[81] RIIO-3 Sector Specific Methodology Decision – Overview Document, A1.30
[82] Utilities Act 2000

real-world data rather than a pre-set or pre-determined view of the future which may or may not actually transpire (and of which there is little evidence in terms of customer switching to date).

- The proposed policy change does not meet the aspiration of reducing stranding risk, as indeed no accelerated depreciation policy on its own can.
- As the proposed policy change does not provide the surety over RAV recovery that investors require, it does not provide for longer-term financeability and investability and therefore also does not support the achievement of net zero, which as the Government review highlights requires GDNs to be able to continue to invest to achieve the transition to net zero - "Therefore, it is important to ensure the right conditions for continued investment, helping to maintain a resilient gas network that can continue to meet demand and operate safely throughout the transition to net zero, while also ensuring that this transition is fair and affordable for all energy consumers".83

Conclusion

332 It is important therefore for the FD that Ofgem:

- Sets out clear unambiguous statements, as the economic regulator for the sector, that it assumes and has assumed that the RAV will be fully recoverable in fulfilling its financeability duty;
- Provides protection over customer bills, particularly for those in vulnerable circumstances, through making it clear that the full recovery of RAV and costs cannot be borne by gas customers alone, if there is transition to alternative heating sources by 2050;
- Sets out the need for changes to the economic framework when network utilisation or customer numbers fall to provide an appropriate equity buffer[84];
- Undertakes a comprehensive Impact Assessment, in line with the requirements set out in the Utilities Act, 2000 before introducing any policy changes.

333 [redacted]

334 In addition, for the reasons set out in our response it is clearly evidenced that the SGN Trigger mechanism, which has been mischaracterised by Ofgem in the DD, continues to represent a superior option as it:

- Represents an option responsive to circumstances and evidenced customer switching behaviours rather than seeking to forecast, or precipitate them;
- Is 'fairer' to customers – and designed to be fair - in the context of whatever emerges in terms of customer switching behaviour.

335 As a result, and notwithstanding the more fundamental points above which the FD must address, Ofgem should also in terms of its decision to apply Accelerated Depreciation in GD3, apply a version of the SGN trigger mechanism based upon the additional evidence set out in this response.

7.2 GT Draft Determinations position

FQ25. Do you agree with our proposal to maintain the existing depreciation policy for gas transmission assets?

336 We believe this is an issue for GT and Ofgem and we have set our views for GD in FQ24.

[83] Midstream gas system: update to the market, 30 June 2025
[84] SGN Business Plan Finance Annex, Section C.1 Accelerated Depreciation, p19

7.3 ET Draft Determinations position

FQ26. Do you agree with our proposal to maintain the existing depreciation policy for electricity transmission assets?

337 We believe this is an issue for GT and Ofgem and we have set our views for GD in FQ24.

Chapter 8 Return Adjustment Mechanisms

FQ27. Do you agree with our proposals for the RAM thresholds and adjustment rates?

338 We believe RAM thresholds and adjustment rates should be one of the final calibration adjustments that are made to the FD package.

339 Given ODI's are relatively small, the current threshold of 300bps that tiggers further RORE adjustments seems significantly beyond what we would consider 'extreme'. It is equivalent to 25% of Totex over / underspend which is significantly beyond what we believe Ofgem view extreme (based on their +/- 10% financeability test).

340 Therefore, it is likely that the threshold should be reduced to have an initial tigger at 100 -200 bps and adjustments rates should be set commensurate with the inherent risk that remains in the package.

341 We believe RAM's should continue to exclude Financing performance for reasons set out for this decision in RIIO2.

342 We should also note that we do not consider RAM's as a substitute for correcting the risk mitigations we have put forward at source or having a bespoke sharing mechanism for certain areas of Totex.

343 We believe this is in consumers interest as the mechanism is symmetric so whilst RAM's protect investors for downside risk, they protect consumers for upside risk.

FQ28. Do you agree with our proposal to include programmes such as ASTI within RAMs?

344 This is an issue for ET and Ofgem.

Chapter 9 Indexation of Regulatory Asset Value

FQ29. Do you agree with our proposals for RAV Indexation?

345 We agree that the SSMD proposed RIIO-3 RAV indexation methodology, which reflects the adoption of a nominal allowance for fixed rate debt in line with the notional capital structure, requires a modification to be made to the final year of RIIO-2 and first year of RIIO-3. This is to ensure that the closing RIIO-2 RAV reflects the full year's inflation for 2025/26.

346 However, with reference to para 10.3 of the DD Finance Annex[85], it should be noted that care needs to be taken when setting out the RIIO-3 RAV indexation mathematically. It needs to be clear that the proportion of RAV that isn't indexed is not 70% (which is the gas network notional fixed rate proportion of debt) but 42% (70% of the 60% gas network notional debt proportion of the RAV).

[85] Ofgem (2025), RIIO-3 Draft Determinations Finance Annex, para 10.3

Chapter 10 Other finance issues

10.1 Capitalisation rates

FQ30. Is there any additional evidence we should consider to improve our setting of regulatory capitalisation rates?

347 We welcome the ex-ante allowed totex (bucket one) capitalisation rates being set in line with the natural capitalisation rate. However, to maintain this alignment between regulatory and natural capitalisation rates throughout RIIO-GD3 an outturn capitalisation rate should be adopted - otherwise this could cause quite significant forecast cashflow and credit rating metrics impacts.

348 This can be an even more significant issue for re-opener and volume driver funding (bucket two), and thus we recommend the capitalisation rates for bucket two are set initially using forecast totex spend but then adjusted for outturn capitalisation rates. Within GD2, a fixed capitalisation rate for a varied set of re-openers was not flexible enough to manage differing capex/opex splits that occurred within each re-opener. This has caused a difference in the natural capitalisation rate and the accounting treatment, which led to timing differences in cash flow impacting on credit rating metrics.

349 In order for capitalisation rates to be set accurately at the start of GD3, disaggregation of Totex allowances needs to be more robust, otherwise, the risks identified above could materialise (see GDQ 45).

10.2 Disposal of assets

FQ31. Do you agree with the approach to maintain the RIIO-2 treatment for disposal of assets?

350 We are supportive of continuing current treatment of offsetting disposal proceeds against Totex, for non-operational assets with a relatively immaterial value. For larger scale disposals / transfer of network assets, this treatment may not be appropriate and should be dealt with on a case-by-case basis. There has recently been a consultation on the transfer of network assets to the hydrogen business, where valuation methodologies need to be agreed. The treatment of these transfers needs to be carefully considered, but we do not think the FD is the right place to make these decisions.

10.3 Ex ante base revenue and RAV

FQ32. Do you agree with the proposal for the ex ante base revenue definition we will use to calculate the re-opener materiality thresholds?

351 In principle, we don't agree with a materiality threshold being applied to re-openers, as we don't think they are required. As detailed in our response to OVQ13, we don't think they are required as companies are not incentivised to submit immaterial reopeners. Notwithstanding this important point, if ex ante base revenue is used to calculate materiality thresholds, it should include the impact of Ongoing Efficiency, as this is a commitment that is embedded ex ante within network business plans.

10.4Setting ODI Caps and Collars

FQ33. Do you agree with the proposal for how we will set ODI caps and collars at final determinations that are fixed for the duration of RIIO-3?

352 In principle, we agree with the proposed approach, but the precise calibrations of the ODI caps and collars are commented on in within the GDN specific annex responses for each ODI-F (GDQ3, GDQ12, GDQ15, GDQ17 and GDQ19).

10.5 Using WACC as single uniform TVOM

FQ34. Do you agree with the proposal to move to using nominal WACC as the single uniform TVOM?

353 Our position has not changed from that adopted by Ofgem for RIIO-GD2/T2, i.e. that WACC should be applied to revisions to PCFM inputs whilst a Cost of Debt figure should be applied to k correction (under/over recovery errors). We understand the application of a single time value of money adjustment is being driven by a proposal to combine the ADJ and k terms into one. We understand these terms are combined in the RIIO-ED2 PCFM, but we are not sure of the advantages of this. This is because not separately seeing changes in the total amount of allowed revenue networks are allowed to collect, and timing of collecting that revenue, seems fundamental to the transparency of the process.

354 We believe a bank rate plus margin is more suitable when a company can be reasonably expected to accommodate the movement of relatively minor cashflows across years via a short-term bank facility or equivalent, i.e., when it has made an under/over recovery. In contrast a nominal WACC should be applied to prior year adjustments when timing adjustments entail a more substantial commitment and, or, take effect over a longer duration. For example, when investment expenditure is not known when allowances are set ex ante at FD, including reopeners and uncertainty mechanisms.

10.6 Revenue Forecasting Penalties

FQ35. Do you agree with the proposed base revenue forecasting penalty mechanism?

355 Whilst we understand Ofgem's desire to improve accuracy within network forecasts and support its broader aim of aligning sector licences where appropriate, we do not believe that the proposed base revenue forecasting penalty mechanism is appropriate for the Gas Distribution (GD) sector.

356 To date, we are unaware of any material instances of erroneous base revenue forecasting in RIIO-GD2. Furthermore, we note that the rationale for introducing such a penalty mechanism in the Electricity Distribution (ED) sector—namely, the significant reliance on internal forecasts to set load-related variant allowances—does not translate to GD. In ED2, Ofgem sought to ensure DNOs did not offset reductions to their business plan allowances by leveraging forecasting mechanisms in the Price Control Financial Model (PCFM). This context is not directly applicable to GD, where there is no equivalent variant allowance with the same level of dependency on internal forecasts or associated materiality.

357 We therefore believe the introduction of a penalty mechanism in GD risks unfairly penalising networks for elements largely or entirely outside of their control.

358 Additionally, we remain firmly opposed to the principle of penalising networks for cost forecasts that are inherently volatile and beyond our control, particularly in the context of pass-through costs. We have repeatedly demonstrated that the volatility and uncertainty associated with these costs in the GD sector are materially different from those in other sectors. As such, we urge Ofgem to acknowledge these sector-specific differences and remove them from the proposed penalty mechanism.

359 We continue to welcome the opportunity for further discussion with Ofgem to ensure a shared understanding of these differences and to work collaboratively towards a fair and proportionate mechanism.

FQ36. Do you agree that the thresholds have been set appropriately?

360 Whilst we refer to the broader concerns raised in response to FQ35 regarding the appropriateness of applying a forecasting penalty mechanism in the Gas Distribution sector, we nevertheless welcome Ofgem's decision to increase the threshold from 6% to 8%. This adjustment reflects a more appropriate tolerance for forecast variants and is a step in the right direction.

361 However, we continue to believe that any threshold, regardless of level, remains inappropriate where applied to elements outside of network control. We would urge Ofgem to consider further refinements to ensure the mechanism targets only areas where networks have meaningful influence over forecasting outcomes.

Chapter 11 Impact Assessment

IAQ1: Do you agree with our approach to assessing the economic impacts of RIIO-3?

Summary of SGN Position on IAQ1

362 We do not agree with the approach to assessing the economic impacts of RIIO-3. Principally, this is because the Impact Assessment of policy decisions carried out by Ofgem represents a clear statutory requirement that has not been fulfilled.

363 As we set out as part of that earlier response[86] "*A well articulated impact assessment provides a clear line of sight (and associated analytical framework) from the 'decisions' to the Ofgem duties which support these decisions. We believe the correct approach as regards both proper regulatory policy-making and legal propriety would be to implement an assessment framework that aligns decisions, their assessment and the discharge of duties*."

Legislative Context for the carrying out of Impact Assessment

364 Section 5A of the Utilities Act, 2000[87] provides that Ofgem must conduct an Impact Assessment where:

- (a) The Authority is proposing to do anything for the purposes of, or in connection with, the carrying out of any function exercisable by it under or by virtue of Part 1 of the 1986 Act or Part 1 of the 1989 Act [F2, Part 1 of the 1989 Act or Part 8 of the Energy Act 2023]; and
- (b) it appears to it that the proposal is important…….
- 2(b) A proposal is important for the purposes of this section only if its implementation would be likely to do one or more of the following……
- ….. **have a significant impact on persons engaged in the shipping, transportation or supply of gas** conveyed through pipes (emphasis added)

365 It is clear that the proposals in relation to RIIO-GD3 will have a significant impact on gas distributors and therefore falls within the remit of that where an Impact Assessment is required.

366 That Impact Assessment is by virtue of the statute required to assess the impact of proposals **not on consumers** (although *significant impact on the general public in Great Britain or in a part of Great Britain* is included in Section 5A 2(d)) **but on those impacted by the decision itself** – that is, in this instance, on gas distribution networks themselves.

367 It is our view that the Impact Assessment carried out, and presented by Ofgem alongside the Draft Determinations **fails to meet the standard required** or to adequately assess the impact of the proposed decisions on either gas distribution network operators nor the wider impact on consumers, and by extension the Great British public.

Failings in the Context of the Impact Assessment Carried Out by Ofgem

368 In particular in relation to the Impact Assessment conducted:

- There is no impact assessment of the level of cuts proposed by Ofgem relative to that set out by networks in their business plans and the associated impact on the ability of networks to discharge their own statutory duties or to meet the safety requirements associated with the operation of the network;
- There is no impact assessment of the proposed accelerated depreciation of the GDN RAV and the potential impact on financeability, investability and economic growth.

[86] 30.09.24- SGN -Ofgem Letter- Impact Assessment
[87] https://www.legislation.gov.uk/ukpga/2000/27/section/5A

- Moreover at SSMD Ofgem explicitly stated that ahead of Draft and Final Determination it would undertake a consideration of the impact on both Net Zero and on wider distributional impacts[88]. There is no evidence that this has been carried out.
- There is no detailed consideration of the risks associated with the decisions, nor the balance of risks and the associated impact in the event the decisions are not correct.

Additional Considerations in Terms of Balance of Risk and Stated Effect

369 In addition to those areas where no Impact Assessment has been carried out, there are a number of deficiencies in relation to that which has been undertaken in relation to the overall risk assessment and clear articulation of the discharge by Ofgem of its duties, and the weighting of those duties, and the stated effects of the proposed decisions.

- No risk assessment appears to have been considered in relation to the level of accuracy or reliance that Ofgem should place upon a single totex model to determine the basis of totex allowances[89]
- No detailed risk assessment appears to have been carried out concerning the choice of point estimate within the range of estimate for cost of capital or assessment of the potential costs of failing to attract and retain the necessary capital based on the point estimates proposed.
- There is no clear statement as to how Ofgem has considered its statutory duties, including its new duties on facilitating Net Zero and Economic Growth or how the weighing of these duties has been taken into account in arriving at the decisions so proposed.
- There is a failure to set out or clearly articulate the stated effect of the decisions, and in a number of instances where they have been set out in the accompanying documentation (e.g. in relation to accelerated depreciation) they will fail to have the effect as stated.

Broader Implications of the Investment in the Gas Networks in RIIO-3 and their consideration by Ofgem

370 We also wish to make a number of broader points concerning the statements made within the Impact Assessment undertaken by Ofgem.

- We agree with Ofgem where it states in the Impact Assessment on the Draft Determination that "In gas, we're making regulatory decisions ahead of settled government policy on the future of gas networks." It is important that this uncertain policy backdrop – the continued role of gas in our energy system, as acknowledged in the Government update on Midstream Gas, is reflected in the basis on which decisions are made as part of RIIO-GD3 and in the Impact Assessment of those decisions in a manner which is responsive to, but does not precipitate government policy in this regard.
- We reject the statement in Section 4, paragraph 4.18, that the wider impacts on the gas network will be 'broadly neutral'. Whilst clearly the linkages between infrastructure investment and the wider economy are complex, even from a most basic perspective, Ofgem's Draft Determination GD3 Totex allowance for SGN of £3,430m (23/24 prices) represents a significant capital investment across GB.[90] This investment will be spread across multiple network locations, contract with many UK based suppliers, support thousands of jobs and bring to these economic agents a security of business until 2031; this can only be seen as a positive contribution to the respective economies SGN operates in.
- Despite explicit reference to the requirement to consider how decisions will have an impact on the environment and biodiversity, there is no discussion in the document as to the impact which may result from the decisions Ofgem has taken in regard to this for the gas distribution sector. There is no evidence that Ofgem has: i) incorporated these considerations into their decision-making process throughout optioneering and analysis, and; ii) carried out an impact assessment of how their draft determinations will provide explicit impacts to the environment and biodiversity.

[88] RIIO-3 Sector Specific Methodology Decision – Overview Document, A1.30
[89] This despite the fact that Ofgem has elsewhere indicated it should be afforded a significant margin of appreciation – effectively a significant potential error bar around the results
[90] RIIO 3 Draft Determinations – SGN – Table 13

- As is correctly stated within the Impact Assessment, Ofgem is required to have regard to the government's Strategy and Policy Statement for Energy Policy in Great Britain when carrying out its regulatory functions. However, simply to state that *"it is difficult to quantify the potential benefits of some of the government's strategic objectives"* would appear to fall significantly short of that which is required.

371 We do not raise the above because the implications of understanding the effect of the proposals in the Draft Determinations is of fundamental importance and it is right that the associated impacts, and risks are adequately set out and fully assessed – with all parties having a right to consider them and to respond – prior to Ofgem proceeding to reach a point of Final Determination or to put proposed licence modifications to the licensees to either accept or appeal.

In relation to Impacts on Economic Growth

372 On the question as to whether Ofgem has adequately considered the impacts on Economic Growth we believe there are the following represent obvious omissions:

- No assessment has been given to how the continued sustaining of the gas networks and their ongoing resilience will further contribute to economic growth, despite the clear acknowledgement of same in the Government Update on Midstream Gas. This should be rectified and factored into the overall consideration of the approach to investment in the gas network and the discharge by Ofgem of its economic growth duty;
- No assessment has been given to the impact of reduced economic growth (and the associated multiplier effects) caused by the very significant cuts to gas networks' business plans.
- No assessment has been given to the potential risks from under-investment in the gas networks, including risks to their continued safe secure operation and the consequential impacts on economic growth
- No assessment has been given as to the wider regional differences in potential socio-economic impacts between Scotland and the South of England and the extent to which decisions made by Ofgem will impact on those realities. For example, we are the sole provider of distributed gas in Scotland, playing an important role in that region. Any decision made by Ofgem must be cognisant of the potential varying regional impacts which will play out.

373 These omissions should be rectified between Draft and Final Determination.

374 However, more fundamentally a complete and comprehensive Impact Assessment needs to be undertaken. SGN would refer to its own assessment of the balance of risk, supported by analysis from KPMG[91], in relation to that proposed in the Draft Determinations on which we are happy to engage further with Ofgem in this regard.

IAQ2: What are your views on the appropriate approach to the evaluation of the economic impact of RIIO-3?

375 The economic impact of investment in infrastructure – particularly Services of General Economic Interest is wide ranging, and the definition of what constitutes as 'economic impact' continues to evolve.

376 This wide-ranging impact is effectively acknowledged in the expansion by the legislature of Ofgem's statutory duties to consider both contribution to Net Zero and Economic Growth since the time when decisions were made in respect of RIIO-GD2. As a result, a roll-over or continuation of a simply historical approach is neither appropriate nor fit-for-purpose.

377 The recently published Future Energy Scenarios (FES25) suggest a potentially wider ranging use and utilisation of gas for the future, ranging from the potential for significant decline under a number of the FES pathways, to significant re-purposing under others, to continued important contribution to our energy mix under the best forecast of that which is anticipated over the next decade. As a result, there is significant option value from

[91] SGN-GD3-DD-ECR-10 - KPMG - GD3 Risk Analysis

investment in the gas networks to support these uncertain futures. This value is not reflected in Ofgem's proposed Impact Assessment, nor in the proposed decisions themselves.

378 Traditionally, an Ofgem-led assessment of economic impact centres around the impact to the end consumer from a 'least-cost to serve' consideration, whereby investment in networks should be limited to least cost to protect consumers from carrying undue cost. Since the RIIO2 framework, Ofgem matured its view on this aspect, appreciating the goal of the energy system has moved with a wider acknowledgement of the economic impacts which regulated networks can have within the UK; a view driven by Government policy.

379 The investments which network companies are required therefore to make to meet this are not uniform; there are differing roles being asked of different sectors in order to meet this new goal. What is expected of GDNs will be wholly different to that of TOs, and the roles each play to meet this new goal, and the assessment of any impact therein, will be fundamentally different. At present, we see no consideration given in the impact framework as to the unique contribution each sector will make, and therefore the specific consideration to what 'economic impact' should look like for a GDN versus a TO and how regulatory decisions have been made taking this into account.

380 We also have concerns around the specific calibration of the economic assessment regarding the counterfactual position. Ofgem opts for using a 'RIIO-2 roll-forward' scenario as a counterfactual, maintaining key assumptions regarding the rate of Totex spend and various financing parameters. There are two areas in relation to the approach to using this counterfactual which we do not agree with.

381 Firstly, in keeping with the principles of evidence-based decision making as prescribed by Ofgem in its Business Plan Guidance to companies, rigorous optioneering on all plausible options for a counterfactual has not been conducted and/or presented in the document. Section 3 commences with a decision, stating a roll-forward from RIIO2 with no major policy changes, with no detailed optioneering as to other possible options which could be utilised, and their respective advantages or limitations.

382 Secondly, the reality of a 'RIIO-2 roll-forward' scenario is fictitious and not an appropriate baseline comparator for the impact analysis. The RIIO-2 framework was developed and finalised during 2019/20, with final determinations coming in December 2020. It is inappropriate to assert that the economic and policy environment of 2020 is an applicable context to the investment requirements of RIIO-3 as it ignores the CleanPower30 policy agenda, global supply chain shocks and high price inflation of construction materials, as well as the new secondary duties of Ofgem for Net Zero and Economic Growth. In short, the counterfactual is not a credible option: in no instance would it exist, and it undermines the assessment. A 'RIIO-3 do-minimum' should be the logical starting point for any assessment, whereby investment options are considered against the minimum viable investment required for the period. We believe this should be revisited ahead of the Final Determinations.

383 As set out in our response to IAQ1 we believe the Impact Assessment should set out and consider a risk-based approach: in relation to the adequacy of investment, in relation to the likelihood of the ability to attract and retain the necessary capital, in relation to expected performance under the proposed package.

384 As previously set out in our response in September, it remains our strong view that GEMA needs to consider the impact of its policies over the longer term against the lens of Total Welfare, Impact on Business, Consumers (including inter-generational and distributional impacts) and the impact on Wider government priorities.

IAQ3: Do you agree with our approach to modelling the bill impacts of RIIO-3? Please provide any additional effects or alternative measures that you think would be appropriate

385 In relation to bill impacts we have the following observations:

- We believe a longer-term view should be taken to bills and bill impact across multiple regulatory periods which will help consider the lifetime cost of key decisions such as the scale of investment expansion proposed in respect of ET, and would be consistent with Ofgem's duty to consider the interests of future consumers. To not consider the total cost would be to downplay the longer-term significant bills impacts of that proposed. On the same basis other policy developments can be considered in terms of their NPV neutral impact (but with inter-generational and potentially distributional consequences).

- We believe that while total bill impact should be set out, it is the impact of 'decisions' made by Ofgem which should be highlighted. For example, changes in the risk free rate as a result of the macroeconomic cycle and underlying societal time preference does not in itself represent the outcome of an Ofgem decision in this regard.
- We believe a wider 'consumer wallet' based approach should be considered in terms of affordability and overall consumer interest and bill impact
- We believe that there should be further analysis and consideration of the distributional impacts – this is particularly the case given Ofgem's recently signalled potential change to tariffing and the recovery of costs and Ofgem's own updated guidance on consideration of distributional impacts of policy decisions, published in 2024.