

GDNs & NGT Cost of Debt at RIIO-3

A Report for Gas Networks

22 August 2025

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Wales & West Utilities Limited (“WWU”) has a fundamentally different approach to Ofgem in relation to determination of the cost of debt allowance and this is subject to a Judicial Review process where the hearing is expected to take place before the High Court in October 2025. In the process of completing this report, WWU provided data to NERA to enable NERA to establish a position for the gas cohort for which Ofgem proposes an allowance for cost of debt for GD3. The provision of the data and WWU’s involvement in this report is entirely without prejudice to WWU’s legal position in the forthcoming Judicial Review and any remedies which are sought by WWU in those proceedings.

Scope of Work & Summary: We verify Ofgem's modelling of gas sector cost of debt performance in the DD, and model GDNs & NGT cost of debt performance under a range of scenarios and different sector average bases

Scope of Work & Methodology

- NERA were commissioned by the gas distribution networks (GDNs) and National Gas Transmission (NGT) to assess Ofgem's RIIO-3 Draft Determination (DD) in relation to the cost of debt allowance calibration
- The focus of our study is to collect GDNs and NGT data on debt instruments, and model GDNs and NGT sector cost of debt performance over RIIO-3 under a range of scenarios
- Our modelling methodology is summarised as follows:
 - **Embedded debt:** we draw on companies' debt issuance data from their BP submission in December 2024 aligning with Ofgem's data source for cost of debt modelling. Consistent with Ofgem's methodology, we exclude liquidity facilities, include Cadent refinancing costs, and we do not model derivatives as per Ofgem's approach¹
 - **New debt:** We assume all maturing debt is refinanced within the year, plus 60 per cent of RAV growth, as per Ofgem's approach at RIIO-3²
 - **Interest rate:** To align with Ofgem, we use flat rate for iBoxx and forecast SONIA as per Ofgem's 'WACC Rates Model_DD', i.e. drawing on 10-year nominal gilts for iBoxx and the UK's instantaneous OIS forward curve for SONIA. We assume new debt issued at benchmark index plus Gas Network Premium (GNP) of 25bps
 - **Sensitivities:** We test the sensitivity against:
 - i) **high/low totex scenarios:** we draw on RAV forecasts of high/low totex scenarios in Ofgem's published BPFM models (+/-10%), as per Ofgem's approach³
 - ii) **high/low interest rate scenarios:** we show +/-1% interest rate scenario as per Ofgem's approach, and also +/-2% interest rate scenarios based on historical actual interest rate variations relative to forecast
 - iii) **GNP and additional cost of borrowing (ACB):** we show results assuming NERA's estimate of GNP of 45bps for new debt, and ACB of 44bps plus 6bps of infrequent issuer premium⁴

Summary of Analysis and Conclusions

- First, we verify Ofgem's modelling of sector underperformance in RIIO-3 for GD> and under high/low totex and $\pm 1\%$ interest rate scenarios
 - However, Ofgem's interest rate scenarios do not sufficiently account for potential downside interest rate scenarios, given the market volatility around interest rates. Over the RIIO-2 period, the actual interest rates have been +2.5% higher than the forecast, more than Ofgem's assumed +1% interest rate risk. Over RIIO-3, market forward rates are expected to be ca 1% higher than Ofgem's flat rate assumption. Thus, consistent with Ofgem's RIIO-2 approach of using forward rate +1%, a flat rate +2% scenario should be tested at RIIO-3
 - Under +2% interest rate scenario, the GDN&NGT sector would underperform by 66bps, requiring a 66bps uplift compared to Ofgem's 60bps under the +1% interest rate scenario
- We then show the sector average CoD performance under Ofgem's proposed CoD allowance of 14yr TA+60bps
 - Whilst Ofgem's 14yr TA+60bps uplift allows GDNs&NGT sector to recover expected debt cost with a headroom under +1% interest scenario, the GDNs-only sector would underperform by 8bps under a debt-weighted average basis. Additionally, under a simple average basis, the GDNs&NGT sector would on average underperform by 5bps, and GDNs-only sector would on average underperform by 14bps
 - Under the +2% interest scenario, both cohorts will underperform by 6-23bps under debt-weighted/simple average basis
- Ofgem's DD sets out a CoD allowance of 5.07%, which assumes GNP of 25bps for new debt cost, and ACB of 25bps for the gas sector. In contrast, NERA estimates a GNP of 45bps and an ACB of 44bps plus a 6bps of infrequent issuer premium.²
 - Assuming companies incur GNP, ACB and infrequent issuers as per NERA's estimates, Ofgem's 14yr-TA+60bps uplift would be insufficient to account for downside risk scenarios and thus would lead to further significant underperformance
 - The GDNs&NGT sector requires an 85bps or 91bps calibration uplift under +1% interest scenario, and a 92bps or 98bps under +2% interest scenario, under debt-weighted average or simple average basis respectively, compared to Ofgem's 60bps under the +1% interest rate scenario
 - The GDNs-only sector requires a 95bps or 102bps uplift under +1% interest scenario, and a 104bps or 111bps calibration uplift under +2% interest scenario, under debt-weighted average or simple average basis respectively

1. Ofgem (July 2025), RIIO-3 Draft Determination – Finance Annex, para 2.104.

2. Ofgem (July 2024), RIIO-3 SSMD – Finance Annex, para 2.67, 2.141.

3. Ofgem (July 2024), RIIO-3 SSMD – Finance Annex, table 15.

4. NERA (19 August 2025), Gas Network Premium (GNP) and Additional Cost of Borrowing (ACB) for GD/GT3, p.5.

Result 1 (Verifying Ofgem & higher interest scenario): 1) We verify Ofgem's modelling of sector underperformance in RIIO-3 for GDNs&NGT and under high/low totex and $\pm 1\%$ interest rate scenarios. 2) Ofgem's +1% high interest scenario does not sufficiently account for downside risk as RIIO-2 actual interest more than 2% higher than forecast. Using a +2% interest scenario leads to 66bps of average sector kD underperformance for GDNs&NGT, and requires 66bps uplift compared to Ofgem's 60bps

- We broadly replicate Ofgem's modelling in the DD, as we find that using the 14yr TA shows that the GDNs&NGT sector would underperform by 53bps in the base case scenario and 59bps under the high-interest rate scenario (base case +1%), on a debt weighted average basis.
 - The marginal difference between our modelling results and Ofgem's figures arises from our correction of a formula error made by Ofgem in linking the iBoxx A/BBB indices within its WACC Allowance Model.^{1,2}
- 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.³
 - Hence, a higher interest rate sensitivity of +2% is more appropriate for calibrating the sector CoD headroom, which would lead to a higher underperformance of 66bps and a higher uplift of 66bps compared to Ofgem's 60bps under the +1% interest rate scenario

Expected allowed return on debt minus forecast average expected debt costs in RIIO-GD/GT3

Out/underperformance	Ofgem’s RIIO-3 DD ¹		NERA’s modelling ² (GDNs & NGT)	
Sensitivities	14 Years TA	14 Years TA+60bps	14 Years TA	14 Years TA+60bps
Base Case	-0.54%	0.06%	-0.53%	0.07%
Higher totex	-0.55%	0.05%	-0.54%	0.06%
Lower totex	-0.53%	0.07%	-0.52%	0.08%
High Interest Scenario (Flat rate+1%)	-0.60%	0.00%	-0.59%	0.01%
Low Interest Scenario (Flat rate-1%)	-0.49%	0.11%	-0.47%	0.13%
High Interest Scenario (Flat rate+2%)	-	-	-0.66%	-0.06%
Low Interest Scenario (Flat rate-2%)	-	-	-0.41%	0.19%

Note: (1) RIIO-3 Draft Determination – Finance Annex, Table 10, and Table 13

(2) We have identified an error in Ofgem's WACC allowance model, which Ofgem agreed to correct for in its FD. Our results reflect corrected formulae.

(3) 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 Outpts

Result 2 (GDN&NGT vs GDNs, debt weighted vs simple average): 1) Whilst Ofgem's 14yr TA+60bps uplift allows GDNs&NGT sector to recover expected debt cost under +1% interest scenario, the GDNs-only sector would underperform by 8bps under a RAV-weighted average basis. 2) Under a simple average basis, the GDNs&NGT sector would on average underperform by 5bps, whereas GDNs-only sector would on average underperform by 14bps under +1% interest scenario. 3) Under +2% interest scenario, both cohorts will underperform by 6-23bps under debt-weighted/simple average basis

- Our modelling shows that under the +1% interest scenario, GDN&NGT sector would recover their costs based on debt-weighted average under 14-year TA+60bps. However,
 - GDNs&NGT sector underperforms by 5bps on a simple average basis.
 - GDNs-only cohort underperforms by 8bps under debt weighted average basis, or 14 bps under a simple average respectively
- Under +2% interest scenario, the GDNs&NGT sector underperforms by 6bps, and GDNs-only sector underperforms by 18bps relative to 14-year TA+60bps under a debt-weighted average basis
 - Under a simple average basis, the sector underperformance is 12bps for the GDNs&NGT sector and 23bps for GDNs-only sector

Expected allowed return under 14-year TA + 60bps calibration adjustment minus forecast average expected debt costs in RIIO-GD/GT3

Out/underperformance based on 14-years TA+60bps	Debt Weighted Average		Simple Average		
	Sensitivities	GDNs & NGT	GDNs only	GDNs & NGT	GDNs only
Base Case		0.07%	0.01%	0.01%	-0.05%
Higher totex		0.06%	0.00%	0.00%	-0.06%
Lower totex		0.08%	0.02%	0.02%	-0.04%
High Interest Scenario (Flat rate+1%)		0.01%	-0.08%	-0.05%	-0.14%
Low Interest Scenario (Flat rate-1%)		0.13%	0.10%	0.07%	0.04%
High Interest Scenario (Flat rate+2%)		-0.06%	-0.18%	-0.12%	-0.23%
Low Interest Scenario (Flat rate-2%)		0.19%	0.19%	0.13%	0.14%

Result 3 (Ofgem vs NERA estimate of GNP and ACB): NERA estimates a higher GNP of 45bps and an ACB of 44bps plus a 6bps of infrequent issuer premium that leads to an average sector underperformance of 19-33bps in the base case, requiring a higher calibration adjustment of 79-93bps compared to Ofgem's 60bps. Under +1% high-interest scenario, the calibration adjustment required is 85-91bps for GDNs&NGT sector and 95-102bps for GDNs-only. Under +2% high-interest scenario, the calibration adjustment required is 92-98bps for GDNs&NGT sector and 104-111bps for GDNs-only

- Ofgem's DD sets out a CoD allowance of 5.07%, which assumes GNP of 25bps for new debt cost, and ACB of 25bps. In contrast, NERA estimates a GNP of 45bps and an ACB of 44bps plus a 6bps of infrequent issuer premium.¹
- Assuming companies incur GNP, ACB and infrequent issuers as per NERA's estimates:
 - Under the +2% high-interest scenario, GDNs&NGT sector underperforms by 32bps or 38bps, and GDNs-only sector underperforms by 44bps or 51bps under debt weighted/simple average respectively, relative to Ofgem's 14yr TA + 60bps allowance.
- This translates into a total required calibration uplift to the 14-yr TA of 92-98bps for the GDNs&NGT sector and 104-111bps for GDNs-only sector (shown in section B below), compared to Ofgem's 14-yr TA + 60bps.
- Compared to Ofgem's proposed 5.07% CoD allowance for gas sector in RIIO-3, our analysis suggest a higher cost of debt allowance of 5.39%-5.45% for GDNs&NGT sector and 5.51%-5.58% for GDNs-only sector (shown in section C).

Out/underperformance Sensitivities	Debt Weighted Average		Simple Average	
	GDNs & NGT	GDNs only	GDNs & NGT	GDNs only
A. Sector average underperformance under 14-year TA+60bps (using NERA estimate of GNP and ACB)²				
Base Case	-0.19%	-0.26%	-0.25%	-0.33%
High Interest Scenario (Flat rate+1%)	-0.25%	-0.35%	-0.31%	-0.42%
High Interest Scenario (Flat rate+2%)	-0.32%	-0.44%	-0.38%	-0.51%
B. Required CoD calibration adjustment to 14yr TA³				
Base Case	0.79%	0.86%	0.85%	0.93%
High Interest Scenario (Flat rate+1%)	0.85%	0.95%	0.91%	1.02%
High Interest Scenario (Flat rate+2%)	0.92%	1.04%	0.98%	1.11%
C. Required nominal CoD allowance⁴				
Base Case	5.26%	5.33%	5.32%	5.40%
High Interest Scenario (Flat rate+1%)	5.32%	5.42%	5.38%	5.49%
High Interest Scenario (Flat rate+2%)	5.39%	5.51%	5.45%	5.58%

1. Source: NERA (19 August 2025), Gas Network Premium (GNP) and Additional Cost of Borrowing (ACB) for GD/GT3, p.5.

2. The underperformance is calculated by comparing i) actual cost of debt, assuming 45bps of GNP for new debt, and 44bps of ACB, plus 6bps for infrequent issuers, and ii) for CoD allowance, of 14yr TA+60bps, which allows for 25bps of GNP and 25bps of ACB. This value is equivalent to the incremental calibration uplift required in addition to Ofgem's modelled 60bps uplift

3. Calculated as 60bps of Ofgem's current uplift, plus the values from section A above

4. Calculated as Ofgem's DD allowance of 5.07% (including 60bps of calibration uplift + ACB of 25bps), plus the values from section A above

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