



A33 - NGN RIIO-2

NGN's Proposed Financial Package
for RIIO-2

together
**we are
the network**

1. Executive Summary

NGN does not agree with several of the key assumptions within Ofgem's base case, as defined in the main Business plan.

Bringing together NGN's position on each of the key parameters within the base case, our proposal is based upon:

- **Indexation** – a single-step, full transition from RPI to CPIH as the key measure of inflation with an inflation wedge of 1.05%.
- **Cost of Capital** – the weighted average cost of capital of 3.44% (real, CPIH-deflated) on average over the period.
 - **Cost of Equity** – this will be set at 5.00% on average over the period (real, CPIH-deflated).
 - **Cost of Debt** – we support the concept of the cost of debt indexation. However, we propose a recalibration of the iBoxx index to be based upon a 14–18-year trombone, projected at 2.40% on average over the period (real, CPIH-deflated).
 - **Notional Gearing** – this will reduce from 65% to 60%, in line with Ofgem's assessment. This assumption requires a notional equity injection of £118m, and our plan assumes a further role for Equity.
- **Dividend Policy** – a Dividend Payout ratio of 3.5%, recognising the role equity plays in managing any short-term financeability constraints.
- **Notional Company** – The business plan is based upon the financing of the efficient notional company and the fact that this structure is financeable in the short and longer-term. Nonetheless, we also take account of the financeability assessment of the actual company.

Table A33.1 summarises the key financial inputs we believe should be set for RIIO-2. They represent the Financial Package, balanced to allow us to finance our business plan and deliver for our customers. This package will allow us to deliver the stretching output targets we have set ourselves after considering our extensive stakeholder feedback, whilst also delivering a significant bill reduction to support all customers.

PARAMETER	21/22	22/23	23/24	24/25	25/26	RIIO-2 Average
Measure of inflation	CPIH					
RPI/CPIH wedge	1.05%					
Notional gearing	60%					
Cost of equity (real, CPIH)	4.97%	4.99%	5.00%	5.01%	5.03%	5.00%
Cost of debt (real, CPIH)	2.55%	2.46%	2.38%	2.33%	2.29%	2.40%
WACC (real, CPIH)	3.52%	3.47%	3.43%	3.40%	3.38%	3.44%

Table A33.1. NGN's Proposed Financial Parameters for RIIO-2.

2. Cost of Capital

Based on our own view supported by independent analysis, there are several key areas of the Ofgem's base case (presented and analysed in the main Business plan), with which we disagree in terms of the core assumptions employed: in particular, our position on the appropriate allowed cost of debt, cost of equity and the assumption of an expected equity return of +50 basis points (bps) (outperformance wedge). Each of these is considered in turn below.

Cost of Debt

We remain convinced of the long-term benefits that an indexation approach brings to the regulatory framework and hence to customers, providing stability and lower costs. However, it has become clear that the chosen mechanism for RIIO-GD1 based on a 10-year trailing average of the iBoxx A and BBB indices does not provide the required stable, long-term basis for setting an efficient cost of debt allowance for the sector.

The regulatory framework requires that the chosen indexation approach provides a stable and long-term basis upon which an efficient company can finance its borrowing on a notional and actual basis. One of the key principles which Ofgem has decided to be guided by in setting an allowance for the cost of debt in RIIO-2 presupposes that 'The cost of debt allowance should be a fair and reasonable estimate of the actual cost of debt likely to be incurred by a notionally geared, efficient network company' (RIIO-2 Framework Decision, p.52). To satisfy this principle Ofgem stated its intention to 'broadly match debt allowances with sector expected efficient debt costs for RIIO-2 through the calibration of the index' (RIIO-2 Sector Specific Methodology Decision – Finance annex, para 2.61).

Given the conclusion that the continuation of the current methodology would under-compensate the sector in RIIO-2 and hence be not appropriate (more details can be found in Appendix A29 - Cost of Debt in RIIO-GD2 - A report prepared for NGN), we have assessed the various alternative options that Ofgem could adopt and whether a certain mechanism is likely to over- or under-fund the sector average cost of debt.

A recent analysis of Ofgem's working assumption on the cost of debt allowance based upon an 11–15-year trombone reveals that the gas distribution sector would significantly underperform the debt allowance over RIIO-2. The sector is expected to underperform by 85 bps in RIIO-2 (including derivatives) using debt-weighted average performance, and to underperform by 102 bps in RIIO-2 (including derivatives) using simple average performance (more details can be found in Appendix A30 - Cost of Debt at RIIO2 – A report for Gas Distribution Networks).

Under the most conservative assumption when the effect of derivatives is excluded from the sector's average debt costs (this is without prejudice to NGN's position on this subject matter, whereby we consider it reasonable to allow for derivatives as an integral part of companies' debt costs), GDNs as a sector are expected to underperform over RIIO-2 under Ofgem's proposed 11-15-year trombone mechanism by 47 bps based on debt-weighted averaging methodology and by 46 bps estimated using the equally-weighted average performance.

Therefore, we believe that the correct calibration of the index to meet Ofgem's stated objective of matching the debt allowances with the sector expected efficient debt costs should be based on a further extension to the trailing average period.

Frontier Economics has found that a trombone-style average mechanism may work better in calibrating the indexation methodology than a rolling average due to the current debt book of the sector and the maturity profile of the existing debt. Based on the market data available at the end of 2018, Frontier Economics suggested that a 13-17-year trombone calibration of iBoxx indices may be better suited to fund the sector average in RIIO-2 (including derivative costs assumed at 35 bps).

However, market developments during the course of 2019 and new evidence on the higher effect of derivatives on the gas distribution sector's average cost of debt (which have been proven to lie in the range of 37-56 bps) has led us to the conclusion that a trombone mechanism, extending from 14 to 18 years, would be more appropriate for RIIO-2. This conclusion has been reinforced by the results of the gas distribution sector's average performance in RIIO-2 under the suggested methodology, modelled by NERA in a recent study (more details can be found in Appendix A30 - Cost of Debt at RIIO-2 – A report for Gas Distribution Networks).

The assessment of the GD sector's average performance should be made in the context of the assumptions on the additional costs of borrowing and of the effect from the derivatives, which can be either included or excluded from the analysis.

In the Sector Specific Methodology Decision (SSMD) Ofgem has concluded that there was evidence to support a 'halo effect' of 7 bps based on relative credit spreads of networks' bonds vs the iBoxx index. The ENA has commissioned research by NERA to examine this conclusion in more detail. The research has sought to:

- Review Ofgem's estimate of the "halo effect" in its SSMD and consider the evidence for new issue premium (NIP)
- Analyse the evidence on companies' additional costs of borrowing and set out an estimate of these costs drawing on company data, market evidence, and regulatory/rating agency requirements for liquidity (and hence cost-of-carry)
- Analyse the evidence on the cost of mitigating basis risk from a switch to CPI indexation.

The key findings (more details can be found in Appendix A34 - Halo Effect and Additional Costs of Borrowing at RIIO-2) of this analysis and research are that:

- There is no evidence for a ‘halo effect’ – but there is evidence for a NIP and this is consistent with other studies, e.g. CMA findings at BGT 2015 and previous studies on this topic. The implication is that Ofgem should allow companies to recover additional costs of borrowing in full;
- Ofgem’s measures of credit spread do not accurately control for differences in network bond and iBoxx tenor. Using a more robust measure of credit spreads based on BoE yield curve, a “negative halo” of -13 bps is derived. The negative halo can be explained by networks facing a new issue premium (NIP). This estimate is consistent with other recent studies’ NIP estimates for corporate debt. Even if credit spreads reported by IHS Markit and Bloomberg provided a reliable measure of halo (which they do not), NERA shows that the “halo” is not statistically different from zero;
- Drawing on company data and market evidence, the following additional costs of borrowing for networks over RIIO-2 have been identified:

- Transaction costs of 7bps, drawing on company public bond issuance;

- Liquidity cost of 4.5bps, or 9bps if facility half-drawn (in summing costs, NERA assumes no draw-down to avoid any potential double-count with cost-of-carry);

- Cost-of-carry of 16 to 45bps based on companies meeting sufficiency of resource and rating agency requirements to meet obligations for 12- to 24-month period.

NERA has estimated 28 to 57bps for transaction, liquidity costs and cost-of-carry. When NIP of 13bps and costs for a switch to CPI indexation of 12bps are factored in, overall, additional costs of borrowing lie in the range of 53-82bps.

Therefore, it is reasonable to assume 68 bps for transaction, liquidity, cost-of-carry, new issue premium and CPI switching-related costs, based on the mid-point estimate of the above-mentioned range.

The gas distribution sector underperforms by 37 bps in RIIO-2 (including derivatives) based on debt-weighted average performance and by 55 bps based on simple average performance under 14-18-year trombone index.

Under the most conservative assessment of sector average debt costs when the effect of derivatives is excluded (this is without prejudice to NGN’s position on this subject matter, whereby we consider it reasonable to allow for derivatives as integral part of companies’ debt costs) the GD sector performs in line with the allowance over RIIO-2 based on both debt-weighted average and on equally-weighted average performance.

As an extra sensitivity, we have also analysed what the sector’s performance would be if tested under Ofgem’s previous assumption of 20 bps on additional costs of borrowing. Under this sensitivity, GDNs would on average outperform the allowances by 10 bps when assessed under the debt-weighted average approach and underperform the allowance by 8 bps when assessed under the equally-weighted average.

Therefore, based on this evidence we currently believe that an appropriate calibration of the debt index will be a 14-18-year trombone with the cost of debt allowance for RIIO-2 as set out in Table A33.2. below:

PARAMETER	21/22	22/23	23/24	24/25	25/26
Cost of Debt (real, CPIH)	2.55%	2.46%	2.38%	2.33%	2.29%

Table A33.2. NGN’s Proposed Cost of Debt Allowance for RIIO-2.

Cost of Equity

In arriving at our assessment of the appropriate cost of equity for the notional efficient GDN during RIIO-2, we have considered a range of analyses prepared for NGN, ENA and Ofgem itself.

The detailed assessment of Ofgem’s methodological approaches to estimating each individual element used to derive the SSMD working assumptions on the allowed cost of equity (quoted in Table A33.3), has been provided in NGN’s and the ENA’s responses to Ofgem’s RIIO-2 Sector Specific Methodology Consultation. A large number of comprehensive research papers prepared by the independent economic consultancies, including Oxera, NERA, Frontier Economics, have been submitted in order to provide theoretical and empirical evidence on the correct calibration of the cost of equity for RIIO-2. These should be carefully considered by Ofgem before arriving at a final decision. More details can be found at <https://www.ofgem.gov.uk/publications-and-updates/riio-2-sector-specific-methodology-consultation>.

During 2019 further analysis has been performed in relation to the cost of equity per se and on the concept of adjusting the equity return downwards to offset assumed outperformance. Based on the new evidence from capital markets, and in response to further thinking and evidence presented in Ofgem's SSMD, Oxera has recently updated its original report on the Cost of equity for RIIO-2 (more details can be found in Appendix A32 - The Cost of Equity for RIIO-2 - Q4 2019 update).

The effective ranges for the cost of equity using Ofgem's analysis and the Oxera's estimates, which have been endorsed by the ENA and its members, are as follows:

	Ofgem	ENA (Oxera)
Real Total Market Return (TMR), %	6.25 - 6.75%	7.00 - 7.50%
Real Risk-Free Rate (RFR), %	-0.75%	-1.2 - -0.79%
Asset Beta	0.35 - 0.40	0.38 - 0.41
Debt Beta	0.15 - 0.10	0.05 - 0.05
Notional gearing, %	60%	60%
Equity Beta	0.66 - 0.85	0.88 - 0.95
Cost of equity (step 1), %	3.87 - 5.63%	5.98 - 7.09%
Cost of Equity (step 2 - judgement), %	4.00 - 5.60%	5.98 - 7.09%
Expected outperformance, %	0.50%	N/A
Allowed return on equity, %	4.30%	5.98 - 7.09%

Table A33.3. Comparison between Ofgem's SSMD and industry's estimates of the cost of equity for RIIO-2, CPIH.

As can be seen from the above comparison, the key variances between Ofgem's and industry's position lie in the following areas:

- A.** Risk-free rate
- B.** Total Market Return
- C.** Beta
- D.** Expected outperformance

Below we have tried to summarise on a very high level (without attempting to replicate the comprehensive analysis and evidence mentioned above) the key factors, driving the differences between Ofgem's and industry-endorsed cost of equity estimates.

Risk-free rate

We agree in principle with Ofgem's proposals to implement equity indexation by updating the risk-free rate subject to the detailed calibration of this index. Therefore, the values of the RFR quoted above do not represent the values that would be used during RIIO-2 but are provided for indicative purposes to demonstrate what the cost of equity would be if they were set as per Table A33.3. The actual RFR will, of course, be determined by the latest market evidence available during the course of the RIIO-2 period.

Total Market Return

1) Ofgem relies on advice from the authors of the UKRN study to deflate historical nominal equity market returns by an estimate of historical CPI inflation rather than using RPI inflation as per the common regulatory practice. However, this approach has been widely contested due to the fact that sufficient data to calculate the CPI did not exist prior to 1989 and hence the data on historical CPI inflation during the period of 1900-1989 cannot be regarded as reliable.

2) Ofgem follows advice from the authors of the UKRN study to estimate the geometric average of historical equity returns and then adjust this number upwards to estimate the corresponding arithmetic average. This approach produces a lower estimate of the TMR and deviates from the established regulatory practice. For example, the CMA has explored this matter and concluded (NIE, 2014) that the arithmetic average return provides the most relevant measure for the purposes of setting the allowed cost of equity.

Beta

- 1) Ofgem beta estimates are constrained by its chosen comparator sample, which has been reduced to only five UK listed companies, three of which represent water and waste management utilities. However, there are serious concerns with using such a data sample, which includes UK water companies but excludes a wider range of energy networks with similar risk characteristics to the UK energy networks.
- 2) Ofgem applies an EV/RAV adjustment of 1.1x when calculating the gearing for de-levering raw equity betas. Nevertheless, given that the raw equity betas are affected by the companies' actual gearing levels, it appears appropriate to de-gear them using the same actual gearing levels that underpin the observed share price movements.
- 3) In the SSMD Ofgem assumed debt betas in the range of 0.15 to 0.10. This estimate appears to be based on the out of date information derived using less relevant comparators. On the contrary, Oxera has analysed the most recent market data on regulated networks and concluded that a debt beta of 0.05 would be appropriate for RIIO-2.

Expected outperformance

We conceptually disagree with Ofgem's decision to adjust the allowed return on equity for expected outperformance. The possibility of outperformance encourages companies to make cost efficiency gains/service quality improvements, which deliver customer benefits through lower bills and/or better service. If Ofgem believes that the level of outperformance should be reduced, the correct approach would be to identify and directly reduce the scope for such outperformance via the relevant mechanisms. For example, if excessive outperformance is expected relative to cost allowances, this needs to be addressed through a higher efficiency challenge, not through a lower allowance for the equity return.

In the SSMD Ofgem has proposed to reduce its baseline estimate of the cost of equity by 50 bps. According to Ofgem, this is to account for anticipated outperformance by licensees with respect to regulatory targets. At this stage of the price control process, the value of the adjustment, i.e. 50 bps, is a working assumption, to be reassessed at the final determination on the basis of updated information, including additional information provided by network companies in business plans, revealed investor expectations, the RIIO-2 incentive regime and the approach to setting RIIO-2 cost and incentive baselines.

Without prejudice to our firm view against the principle of adjusting the allowed return on equity for expected outperformance, if Ofgem is minded to carry out such an adjustment, then it is necessary to quantify the outperformance wedge robustly.

Frontier Economics, on behalf of NGN, has carried out a detailed analysis to estimate a plausible range for the expected outperformance for a notional GDN, based on a forensic bottom-up review of the proposed RIIO-2 price control incentives data (more details can be found in Appendix A31 - Outperformance wedge). We note that a similar bottom-up analysis has not been conducted by Ofgem in arriving at its 50bps estimate.

Frontier's approach for estimating a range of expected outperformance is comprised of three steps:

1. Firstly, identify the RIIO-2 incentives that may generate over- or under-performance and estimate their target levels in RIIO-2;
2. Using historical data where possible, estimate the potential performance against the target levels and correlation between the different incentive performances. Where historical data is unavailable, plausible assumed correlations have been developed, with scenario testing to confirm reasonableness.
3. Simulate the incentive-level and overall performance for a notional company in RIIO-2 using a Monte Carlo simulation analysis.

As far as possible, the analysis relies on historical data to inform the modelling. Given the nature of the task, a range of supporting assumptions must be made. Having made a set of assumptions, however, this framework allows the calculation of what it would mean for expected outperformance. In particular, this modelling framework is useful as it allows one to explore what one would need to believe in order for a 50 bps downward adjustment to be justified.

Modelling Results

The core modelling scenario suggests that an average GDN in RIIO-2 should expect to underperform by 27 bps. This arises as a result of:

- Neutral modelling assumptions around Totex (i.e. where it has been assumed that Ofgem will be successful in setting targets that leave no expected outperformance for the average firm);
- An assumption that Output Delivery Incentive (ODI) targets are set at an upper quartile level, which would not be met by an average firm; and
- A number of downside-only instruments (e.g. GSOP).

These results are broadly robust to a range of different assumptions, including alternative calibration of ODIs, Business Plan Incentive and Emergency Response Time incentives, the correlation between incentives and RAV/Totex ratios.

Clearly, the treatment of Totex outperformance is a key determinant of this finding. However, it is important to stress that neutral performance has been assumed in respect of Totex under the base case, from which to derive what is perhaps the more interesting result, i.e. what level of average Totex outperformance one would need to expect to see, in order for it to be valid to assume a 50 bps expected outperformance wedge. The answer is that a very large and sustained average outperformance – 9% across the sector in aggregate over the period – needs to be assumed.

It feels incongruous, to say the least, to simultaneously take the view that Ofgem will strive to set stretching targets for the entire sector, while at the same time assuming an outperformance wedge that can only be justified by assuming Totex outperformance from the entire sector at 9%. Ofgem will need to 'square' this circle if it intends to maintain its position on the 50 bps.

Conclusions

Overall, following a detailed modelling investigation into all the incentive mechanisms that we understand will be included in the RIIO-2 framework, we have not identified a reasonable basis on which one could assume that an average GDN can be expected to outperform by 50 bps in RoRE terms.

- The average GDN is expected to underperform by some 27 bps in RoRE terms. This result is based on the base case assumptions that:
 - there is zero expected Totex outperformance;
 - the average GDN – almost as a matter of definition – will fail to meet targets set by Ofgem on the basis of expected upper quartile performance; and
 - Business Plan Incentives will be set with zero expected value (i.e. companies do not anticipate a loss on average).
- The probability of an average GDN achieving the 50 bps in the base case is 2.6%.
- In order for 50 bps to be a valid central assumption in the base case, it would be necessary for Ofgem to believe that in expectation the average GDN will outperform on Totex by 9%.
- If one assumes that an average GDN could actually achieve upper quartile performance on all ODIs, then Frontier Economics finds that the underperformance wedge would still be 18 bps. On this basis, the probability that a GDN could achieve 50 bps RoRE outperformance through other incentives would be 5.8% and Ofgem would need to believe that the average GDN could be expected to outperform its Totex targets by 7.9%.

These findings cast serious doubt over the validity of Ofgem's assumption on 50 bps of expected outperformance in RIIO-2. On this basis, it cannot form part of our Proposed Financial Package for RIIO-2.

The analysis presented in this document, in other Appendices to the Business plan and in response to Ofgem's RIIO-2 consultations proves that the cost of equity range for RIIO-2 is, in fact, a lot broader than that assumed in the SSMD. We have assessed this range from a holistic perspective, which takes into account the feedback from our stakeholders, factors in our frontier operational and financial performance and an increased role our shareholders will play in addressing financeability concerns in the next price control.

Based on this assessment and without prejudice to the industry-endorsed range for the cost of equity, we believe that an equity return of 5.00% for NGN strikes an appropriate balance of interests between our customers and investors in RIIO-2.

	Ofgem	NGN
Cost of Equity (CPIH)	4.8%	5.00%

Table A33.4. NGN's proposed average Cost of Equity for RIIO-2

3. Key Financial Parameters

Set out below are the key financial parameters, estimated using NGN's proposals for the RIIO-2 period. A position that:

- strikes a fair balance between customers and investors;
- is sustainable for the longer term and does not increase the perceived riskiness of the sector by investors;
- is consistent with the market evidence on both the appropriate cost of equity and debt; and
- allows us to deliver for our customers, whilst remaining financeable.

This package will allow us to deliver the stretching output targets we have set ourselves after considering our extensive stakeholder feedback, whilst also delivering a significant bill reduction to support all customers.

£m, 2018/19 prices

Parameter	2021/22	2022/23	2023/24	2024/25	2025/26	GD-2 Average
Closing RAV	2277.99	2326.68	2371.61	2407.68	2433.65	2363.52
Fast Money, %	35.24%	33.91%	33.70%	33.93%	35.05%	34.37%
Slow Money, %	64.76%	66.09%	66.30%	66.07%	64.95%	65.63%
Fast pot expenditure	87.83	86.56	85.82	84.20	84.91	85.86
Non-controllable opex	95.21	95.07	92.90	91.38	89.39	92.79
RAV depreciation	115.92	119.81	123.86	127.76	131.28	123.73
Return	77.94	78.50	79.25	79.97	80.53	79.24
Equity issuance cost	5.47	0.00	0.00	0.00	0.00	1.09
Additional income	0.00	0.00	0.00	0.00	0.00	0.00
Core DARTs	4.20	4.20	4.20	4.20	4.20	4.20
Recalculated base revenue (except tax allowance)	386.57	384.15	386.03	387.51	390.31	386.91
Tax allowance	18.31	17.37	17.71	18.10	18.55	18.01
Recalculated base revenue	404.88	401.52	403.75	405.61	408.86	404.92
Incentive income	0.00	0.00	0.00	0.00	0.00	0.00
Total revenue	404.88	401.52	403.75	405.61	408.86	404.92
Costs	-192.71	-185.83	-182.92	-179.78	-178.50	-183.95
EBITDA	212.17	215.69	220.83	225.83	230.36	220.98
Interest	-60.34	-60.70	-61.22	-61.64	-61.80	-61.14
Principal inflation accretion	6.53	6.74	6.91	7.04	7.13	6.87
Capital expenditure	-161.38	-168.71	-168.79	-163.94	-157.36	-164.04
Tax paid	-18.31	-17.37	-17.71	-18.10	-18.55	-18.01
Operating Cash Flow	-21.33	-24.36	-19.99	-10.80	-0.22	-15.34
Disposal proceeds	0.00	0.21	0.00	0.10	0.10	0.08
Dividend	-31.89	-32.57	-33.20	-33.71	-34.07	-33.09
Net Cash Flow	-53.23	-56.73	-53.19	-44.40	-34.19	-48.35

Table A33.5. Financial Parameters (notional): NGN's proposals

Parameter	2021/22	2022/23	2023/24	2024/25	2025/26	GD-2 Average
Adjusted ICR [>1.4x]	1.45	1.45	1.46	1.46	1.47	1.46
Gearing [<75%]	60.28%	60.59%	60.81%	60.86%	60.73%	60.65%
FFO/Net Debt [>9%]	9.72%	9.76%	9.84%	9.97%	10.15%	9.89%
RCF/Net Debt [>7%]	7.40%	7.45%	7.54%	7.67%	7.84%	7.58%
FFO Interest Cover [>2.5x]	3.21	3.27	3.32	3.37	3.43	3.32

Table A33.6 Credit Metrics (notional): NGN's proposals

Parameter	2021/22	2022/23	2023/24	2024/25	2025/26	GD-2 Average
Adjusted ICR [>1.4x]	1.48	1.52	1.42	1.48	1.50	1.48
Gearing [<75%]	66.82%	67.11%	67.46%	67.59%	67.54%	67.30%
FFO/Net Debt [>9%]	9.09%	9.34%	9.19%	9.41%	9.60%	9.33%
RCF/Net Debt [>7%]	6.10%	6.36%	6.23%	6.45%	6.63%	6.35%
FFO Interest Cover [>2.5x]	3.98	3.91	3.67	3.88	4.00	3.89

Table A33.7. Credit Metrics (actual): NGN's proposals

Scenario	AICR	Gearing	FFO/Net Debt	RCF/Net Debt	Moody's implied rating
Notional Financial Structure					
NGN Base case	1.46	60.65%	9.89%	7.58%	Baa1
High interest rates (+1%)	1.49	60.31%	10.15%	7.83%	Baa1
Low interest rates (-1%)	1.43	61.00%	9.63%	7.34%	Baa1
High inflation (+1%)	1.49	59.33%	9.97%	7.61%	Baa1
Low inflation (-1%)	1.43	62.03%	9.81%	7.55%	Baa1
High CPIH-RPI divergence (+0.5%)	1.44	61.34%	9.85%	7.57%	Baa1
Low CPIH-RPI divergence (-0.5%)	1.48	59.98%	9.93%	7.60%	Baa1
RPI ILD	1.57	60.65%	9.89%	7.58%	Baa1
High ILD proportion (+5%)	1.50	60.65%	9.89%	7.58%	Baa1
Low ILD proportion (-5%)	1.42	60.65%	9.89%	7.58%	Baa1
Totex underperformance (-10%)	1.38	62.26%	9.30%	7.06%	Baa2
Totex outperformance (+10%)	1.55	58.99%	10.53%	8.16%	Baa1
Zero RoRe outperformance	1.46	60.65%	9.89%	7.58%	Baa1
RoRe outperformance (+2%)	1.86	58.24%	11.79%	9.39%	A3
RoRe underperformance (-2%)	1.08	63.06%	8.14%	5.92%	Baa3

Table A33.8. Sensitivity analysis (notional), average values for RIIO-2: NGN's proposals

Scenario	AICR	Gearing	FFO/Net Debt	RCF/Net Debt	Moody's implied rating
Actual Financial Structure					
NGN Base case	1.48	67.30%	9.33%	6.35%	Baa1
High interest rates (+1%)	1.41	67.34%	9.27%	6.30%	Baa1
Low interest rates (-1%)	1.58	67.27%	9.39%	6.41%	Baa1
High inflation (+1%)	1.54	64.02%	9.92%	6.95%	Baa1
Low inflation (-1%)	1.42	70.80%	8.76%	5.79%	Baa1
High CPIH-RPI divergence (+0.5%)	1.47	68.32%	9.16%	6.19%	Baa1
Low CPIH-RPI divergence (-0.5%)	1.50	66.31%	9.50%	6.52%	Baa1
RPI ILD	1.48	67.30%	9.33%	6.35%	Baa1
High ILD proportion (+5%)	1.48	67.30%	9.33%	6.35%	Baa1
Low ILD proportion (-5%)	1.48	67.30%	9.33%	6.35%	Baa1
Totex underperformance (-10%)	1.40	68.95%	8.80%	5.93%	Baa1
Totex outperformance (+10%)	1.56	65.61%	9.89%	6.80%	Baa1
Zero RoRe outperformance	1.48	67.30%	9.33%	6.35%	Baa1
RoRe outperformance (+2%)	1.72	66.14%	10.30%	7.28%	Baa1
RoRe underperformance (-2%)	1.24	68.47%	8.40%	5.47%	Baa2

Table A33.9. Sensitivity analysis (actual), average values for RIIO-2: NGN's proposals

As can be seen from the analysis presented in Tables A33.6-A33.9, this plan is financeable under both notional and actual capital structures, stress-tested under a range of macro-economic and business risk scenarios.

For both notional and actual capital structures, we have assessed financeability of NGN within the overarching financial objective of retaining our existing investment-grade credit ratings of Baa1 (Moody's) and BBB+ (S&P). This is consistent with Ofgem's view of the appropriate credit profile for the notionally financed company, implied by its approach to setting the cost of debt allowance, and with the view that companies must maintain headroom against the floor of the investment grade. We consider this to be a prudent and appropriate credit rating target to use (more details can be found in Appendix A26 - Assessment of a Comfortable Investment Grade Credit Rating).

A downgrade to Baa2/BBB credit rating is possible in 'Totex underperformance' scenario under the notional financial structure and in 'Rore underperformance' scenario under the actual financial structure. The only case whereby NGN's rating could fall to Baa3/BBB- credit rating is implied in 'Rore underperformance' scenario under the notional financial structure. However, the probability of these downside scenarios materialising in RIIO-2 to the extent assumed for stress-testing purposes (-10% of Totex / -2% of RoRe) is estimated to be relatively low. None of the tested scenarios results in a downgrade below an investment-grade credit rating.

NGN's RIIO-2 Business plan financeability has also been independently confirmed by KPMG, which has found that 'under the financial projections assumed in the NGN Business Plan, NGN's financial ratios achieve levels consistent with a comfortable Baa1 rating in the Base case, under both notional and actual financial structures, and also achieve this result in most plausible scenarios considered.' (more details can be found in Appendix A27 - Review of NGN's RIIO-2 Business Plan Financeability).

NGN's robust financial projections for RIIO-2 have been underpinned by a simple and transparent capital structure which we have maintained within the business since 2005, by a diversified portfolio of debt providers and by an efficient debt hedging strategy, which has enabled us to become the frontier company in the sector over the RIIO-1 period in terms of the effective total costs of borrowing. This reflects the prudent and sustainable approach to the business taken by the Board over that time.

We have consistently operated at or near the notional level of gearing of 65% during the RIIO-1 period. This is comfortably within the maximum gearing level for the target credit ratings of 75% and within an even tighter internal threshold of 70%. This prudent approach provides a significant level of resilience to NGN and an ability to respond to unanticipated changes in the operating and financial environment. Over the RIIO-2 period we intend to continue operating within a gearing range of 60% to 70%, which continues to provide the financial resilience within our capital structure.

Similarly, we have adopted a dividend policy that is prudent and resilient, and that reflects the underlying performance of our business against the Regulatory Contract. NGN's Board has consistently demonstrated this sustainable approach to dividends and, when appropriate, reduced dividends significantly instead of using the headroom on gearing to support distributions. For example, in 2009, following the financial crisis, low/negative inflation resulted in significant reductions in revenue and nominal RAV. During that period, the NGN Board chose to reduce dividends by more than 50% to preserve the capital structure at these prudent levels.

Over the RIIO-2 period we have assessed the notional company against the 3.5% dividend payout ratio, which has been based on the proposed return on equity reduced by 1.5% (roughly in line with a long-term UK GDP growth forecasts). For the actual company, the dividend payout ratio has been assumed at 5%, which includes the dividend reduction rate of 1.5% but also takes account of NGN's frontier financial performance.