



Appendix 25a: Financial information

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Introduction

The purpose of this appendix is to present:

- UK Power Networks' view on the appropriate cost of equity for RIIO-ED2.
- UK Power Networks' view on the appropriate allowance for the additional costs of borrowing in RIIO-ED2.
- UK Power Networks' approach to ensuring financial resilience in RIIO-ED2.
- The detailed analysis of the outcome of the Ofgem financial stress tests.
- The detailed financial information required by the Business Plan Guidance.

1 UK Power Networks' view on the appropriate cost of equity for RIIO-ED2

It is generally accepted that Distribution Network Operators (DNOs) are at the heart of facilitating the Net Zero transition. What is also clear is that DNOs will be required to increase investment in RIIO-ED2 to enable the deployment of key low carbon technologies, such as electric vehicles (EVs) and heat pumps. However, as our Business Plan demonstrates the scale of the required investment is highly uncertain with the forecast expenditure relating to providing new capacity ranging from £583m to £1221m, a 70% to 256% increase respectively over our RIIO-ED1 load related expenditure. It is therefore vital that the cost of capital is set at a level that allows DNOs to attract the necessary capital to facilitate this investment.

We have engaged with Ofgem throughout the RIIO-2 process on its proposals for determining the cost of equity. We remain of the opinion that Ofgem's methodology is flawed and as such the cost of equity it has determined is too low to ensure that the necessary capital can be attracted into the sector. It is concerning that the proposed RIIO-ED2 cost of capital at 4.40%, (or 4.65% excluding the impact of outperformance wedge) is below the level that the Competition and Markets Authority (CMA) has set for four water companies who appealed their price control of 4.73%.

The Energy Networks Association (ENA) has asked OXERA to update its work on the appropriate cost of equity for RIIO-ED2¹. This work has highlighted the following key errors in Ofgem's approach which has resulted in Ofgem underestimating the required cost of equity for RIIO-ED2:

- **Risk-free rate (RFR):** Ofgem has set its risk-free rate based on spot yields on Government bonds ignoring the fact that companies cannot borrow at this rate. We would note that in its recent initial determination for Heathrow the Civil Aviation Authority (CAA) stated:

"However, as we have previously indicated, we nonetheless consider that ILGs exhibit a "convenience yield", which means that they are likely to understate the "true" risk free rate. In the absence of a superior means of estimating this convenience yield, we continue to consider that it is appropriate to place some weight on the iBoxx non-Gilts AAA-rated 10+ years and 10-15 years indices, in line with the CMA's approach to PR19. While we are aware of drawbacks associated with these indices, we consider their use to be preferable to relying exclusively on ILGs."²

This illustrates that other regulatory authorities are incorporating AAA rated corporate bond information in the determination of the risk free rate and we believe that Ofgem should adopt this approach as well.

- **Total Market Return (TMR):** Ofgem's choice of inflation series to deflate the nominal total market return is inconsistent over time. In addition, Ofgem incorrectly places more weight on the geometric average rather than arithmetic average to calculate the total market return. We note that Ofgem's TMR range is at the bottom half of the CMA's PR19 TMR range whereas OXERA's proposed range broadly aligns with the upper half of the CMA's range. Based on the increased risk that faces electricity distribution companies in RIIO-

¹ "The cost of equity for RIIO-ED2", OXERA. June 2021

² Economic regulation of Heathrow Airport Limited: H7 Initial Proposals, Section 2: Financial issues, para 9.127, page 63, October 2021

ED2 which is explained below, we believe that a value in range proposed by OXERA is more appropriate for RIIO-ED2.

- **Debt beta:** Ofgem and its consultants have made errors in both their estimation of the debt beta and their interpretation of academic evidence relating to the calculation of it.
- **Equity beta:** Ofgem’s beta estimation methodology fails to appropriately consider that energy networks are higher risk than water companies.

Since the submission we have worked with KPMG³ to produce additional analysis of the key factors which demonstrate the increased risk in the electricity distribution sector in RIIO-ED2 and quantify their impact on the equity beta. The key findings from their analysis are:

- It is widely recognised that electricity distribution sector is fundamental to enabling the Net Zero transition and is likely to be the energy sector most impacted by it, particularly in the short to medium term. As a result, the sector is likely to be operating in a more dynamic policy environment than other sectors. The legislative and regulatory responses to these challenges will have a significant impact for the sector’s investment programmes, its relationships with other parts of the energy supply chain and most notably how investors interpret risk for the sector.
- Based on a qualitative analysis across a number of key risk factors electricity distribution faces greater systematic risk exposure. Key amongst these factors is regulatory risk. The regulatory approach to dealing with the uncertainty associated with the rate of take-up of low carbon technologies, if it is based solely on ex post assessment, gives rise to systematic risks associated with the application of regulatory discretion.
- The recent RIIO-GD2/T2 CMA appeal has also highlighted that Ofgem’s margin of appreciation in its decision making is significantly wider than that of OFWAT in the water sector. Given the importance of regulation as a driver of systematic risk this difference indicates that DNOs are exposed to higher levels of such risk.
- Quantitative analysis across a range of approaches demonstrates that the beta estimates of National Grid (NG) and Scottish and Southern Energy (SSE), the two closest proxies to electricity distribution networks, are higher than those of the listed water companies across all estimation windows.
- CEPA’s estimate of the decomposed beta for Ofgem of NG’s GB business is significantly understated. Consequently, this implies that the beta for the NG Group is likely to understate the risk facing pure play GB electricity networks.
- An analysis of NG’s US listing using the Fama and French five factor model (FF5F) implies that the beta is at least 2bps higher than derived from the Capital Asset Pricing Model (CAPM). This indicates that there are systematic risks that the CAPM does not adequately capture. This is relevant in the selection of a point estimate for the cost of equity

The table below sets out the range for the asset beta. The bottom end of the range is defined by the observed asset betas of the listed water companies whereas the upper end of the range has been defined by SSE. The latter has been reduced from to accounts for its different business mix and the potential impact on beta. Management’s view is that based on the analysis by KPMG the asset beta for electricity distribution would lie in the upper half of the range and at least be equivalent to NG’s asset beta of 0.38.

Table 1: Asset and equity beta range

	Low	Midpoint	High
Asset beta	0.33	0.37	0.41
Equity beta	0.71	0.81	0.91

3 Relative risk and beta estimation for RIIO-ED2, KPMG, November 2021

Ofgem also use a range of cross checks including, analysis of infrastructure funds' rates of return and market to asset ratios (MARs) to validate their cost of equity assumption. With respect to the former, OXERA demonstrate that both the implied TMR and lack of consistency between the betas and derived cost of equity suggest that this data is unreliable for the type of cross-check attempted by Ofgem. Consequently, infrastructure funds' discount rates are not an appropriate benchmark for the cost of equity in RIIO-ED2. In regard to MARs, OXERA found that Ofgem's analysis does not take into account all of the relevant market factors, e.g. scale of non-regulated activities in its analysis.

The table below sets out our view on the appropriate cost of equity for RIIO-ED2. The lower bound for both the risk-free rate and the total market return is based on the midpoint of the CMA PR19 decision. The upper bound is based on the OXERA analysis for the ENA. With respect to the equity beta the lower bound is based on the midpoint of the range from the work by KPMG with the upper bound based on the high estimate from that analysis. Given that the analysis shows that the electricity distribution sector faces greater systematic risk than water we believe that it is unjustified to set either the TMR or the RFR below the midpoint of the CMA's range for water companies from the PR19 appeal. Based on the analysis we believe that the cost of equity lies within a range of 5.28% and 6.73% and as minimum should be 5.5%

Table 2: Estimated cost of equity range for RIIO-ED2

Estimated RIIO-ED2 cost of equity (CoE)		
	Low	High
Real TMR (%)	6.81	7.46
Real RFR (%)	-1.34	-0.93
Equity beta at 60% gearing	0.37	0.41
Real CoE at 60% gearing (%)	5.28	6.73

2 The additional costs of borrowing for RIIO-ED2

In its Sector Specific Methodology Decision (SSMD) Ofgem allowed 25 basis points (bps) to compensate companies for issuing debt. This value is aligned with the value used by Ofgem in the Gas and Transmission Final Determinations. We believe that this cost is too low and the ENA has asked NERA to develop an alternative proposal for an appropriate additional cost of borrowing allowance for RIIO-ED2.

There are two main areas where we believe that Ofgem have underestimated these costs, they are new issue premium and cost of carry. In its work for the ENA, NERA⁴ has calculated a new issue premium of 7 bps. This result is not surprising as it reflects the costs of incentivising investors in the primary market relative to secondary market yields. In analysing the appropriate cost of carry for RIIO-ED2, NERA have identified the following errors in Ofgem's analysis:

- Ofgem's use of historical cash-reserves over RIIO-1 likely to understate cash requirements at RIIO-ED2.
- The level of GD/T/ED debt maturing at RIIO-2 will be more than double compared to RIIO-1, consequently:
 - Ofgem's mid-point 2.5% RAV RIIO-1 cash-requirement (i.e. mid-point 0.6-4.1%) should therefore be at least 5%, which corresponds to at least 12 bps.
 - In RIIO-ED2, the greater use of uncertainty mechanisms also increases the need for operational cash and/or additional liquidity facilities through committed bank facilities.

Based on its analysis NERA has estimated that the RIIO-ED2 cost of carry should be 14 bps on average. The table overleaf compares NERA's view of the appropriate additional borrowing cost to that of Ofgem.

⁴ "Additional costs of borrowing and small company premium at RIIO-ED2", NERA, June 2021

Table 3: Comparison of NERA's estimate of the additional costs of borrowing to Ofgem's

	Ofgem FD (Dec 2020)	NERA (Apr 2021)
Transaction Costs	6 bps	7 bps
Liquidity/RCF cost	4 bps	9 bps
Cost of carry	10 bps	9 - 19 bps
New issue premium (NIP)	0	7 bps
CPI indexation costs	5 bps	6 bps
Additional Cost of Borrowing	25 bps	38 – 48 bps

3 Financial risk management and ensuring financial resilience in RIIO-ED2

3.1. Financial Risk Management

A key requirement of Ofgem's Business Plan Guidance is that the Directors provide assurance that the company is financeable on both the notional and actual capital structures. UK Power Networks is rated by both Standard and Poor's (S&P) and Moody's. Through RIIO-ED1 UK Power Networks approach has been to operate so each licence network maintains, as a minimum, a Baa1/BBB+ credit rating. This rating provides headroom for each licence network to withstand credible downside financial scenarios. The table below sets out the current credit ratings for each UK Power Networks licence network.

Table 4: Current UK Power Networks credit ratings

DNO	Moody's	Standard and Poor's
EPN	Baa1	A-
LPN	Baa1	A-
SPN	Baa1	A-

Each of these credit rating agencies utilises a framework that incorporates both qualitative and quantitative factors. The Moody's rating methodology is detailed in its framework for Regulated Electric and Gas Networks, published in March 2017. Similarly, Standard and Poor's rating methodology is detailed in its framework Corporate Ratings Methodology published in November 2013.

Due to the company's strong operational performance over RIIO-ED1 Standard and Poor's upgraded the company to A- in September 2019. In addition, although we are not formally rated by Fitch they maintain an unsolicited rating for UK Power Networks which they upgraded to A-⁵ in June 2020.

Management has a strong track record of taking appropriate action to address financeability issues. In 2014, £150m of high coupon embedded debt was repurchased to strengthen credit metrics in our EPN network in particular. Furthermore in 2020/21, due to low inflation management reduced the dividend from the regulated networks by £145m compared to the previous year to ensure the ongoing stability of the credit metrics.

The core objectives of UK Power Networks' financing strategy are detailed below:

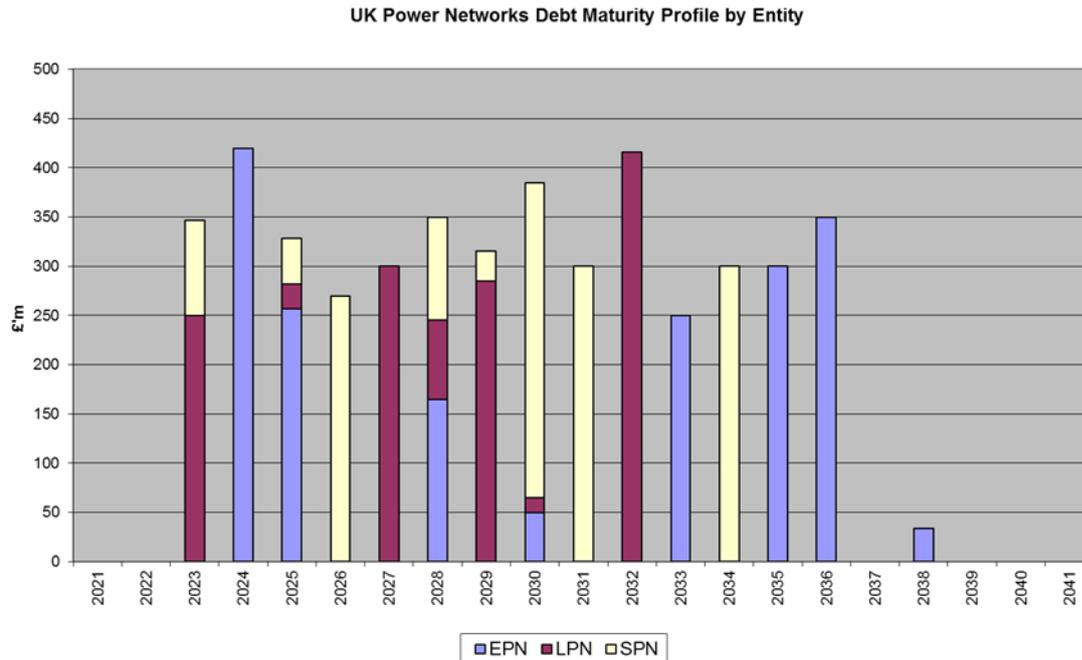
- Maintain a capital structure that supports credit metrics commensurate with a BBB+/Baa1 credit rating.
- Target issuance tenors and issuance sizes that create a smooth maturity profile that broadly matches the profile of the cost of debt allowance.
- Seek to access a diversified range of funding sources to prevent over-reliance on any single market.

⁵ Relating to senior unsecured debt

- Maintain sufficient committed funding sources to cover forecast cash flows and to ensure that credit rating agency liquidity requirements and other regulatory requirements are met.

The graph below sets out the maturity profile for UK Power Networks as of November 2021.

Figure 1: UK Power Networks debt maturity profile



As the graph illustrates management are expecting to refinance £1.5bn of existing debt over RIIO-ED2 which is 30% more than the amount of existing debt that will have been refinanced in RIIO-ED1. A key adverse change to the funding market in RIIO-ED2 is the unavailability of European Investment Bank (EIB) funding due to the UK's withdrawal from the European Union. EIB rates were materially lower than the UK public debt markets and also with the EIB, companies were able to issue debt in tranches smaller than the £250m benchmark size that is required in UK public debt markets. This allowed companies to issue debt more frequently and hence better match the cost of debt index.

Over RIIO-ED2 we expect to issue between [Redacted] and [Redacted] of debt⁶ dependent on which Net Zero scenario develops. It is in consumers' interests that we maintain a strong investment grade credit rating to ensure that sufficient debt capital can be raised at efficient rates.

3.2. Financeability at the notional company level

Ofgem requires each network company to have a robust financial plan over the RIIO-ED2 period that is stress-tested and proven to be financeable under a range of future outcomes. In accordance with Ofgem's SSMD guidance, the following modelling assumptions have been used:

- Weighted Average Cost of Capital (WACC) allowance in line with SSMD Business Planning guidance;
- Notional gearing is set at 60%;
- No totex under/outperformance;
- No incentive scheme under/outperformance;

⁶ Includes both refinanced debt and new issuances

- Cost of debt performance is equal to cost of debt allowance;
- No Business Plan Incentive reward or penalty;
- 25% of the network's debt is assumed to be CPIH⁷ linked;
- Tax allowances are equal to tax costs, as calculated using the Business Plan Financial Model (BPFM);
- Revenue impacts arising from RIIO-ED1 close out mechanisms are excluded; and
- Dividend yield assumed at 3% of regulatory equity.

The tables below set out the key credit metric ratios, for each licence network, using the notional gearing of 60% as derived from the Ofgem Financial Model. The analysis shows that all of key credit metrics are in line with a Baa1/BBB+ rating agency threshold over the RIIO-ED2 period with the exception of the Adjusted Interest Cover Ratio (AICR) ratio which is marginally below the required threshold at the start of the period. This shows, with respect to the AICR, there is minimal headroom to absorb any downside shocks in the notional company.

In addition, we also note that dependent on the scale of the impact of the changes in the access and charging regime, an additional equity injection may be required in our high case scenario at the end of RIIO-ED2. This further reinforces that the cost of equity must be set at a level to attract this investment.

Table 5: Notional company financial analysis⁸

EPN	Credit metric	Threshold	2024	2025	2026	2027	2028	RIIO-ED2 average
Moody's	Adjusted interest coverage ratio	>1.4x	1.34	1.34	1.38	1.43	1.50	1.40
	Net debt/RAV	<=75%	61.12%	62.30%	62.63%	62.45%	62.00%	62.10%
S&P	FFO/debt	>=9%	11.81%	11.65%	12.10%	12.27%	12.39%	12.04%
Pension Trustees	Net debt RAV	<=75%	61.12%	62.30%	62.63%	62.45%	62.00%	62.10%

LPN	Credit metric	Threshold	2024	2025	2026	2027	2028	RIIO-ED2 average
Moody's	Adjusted interest coverage ratio	>1.4x	1.33	1.33	1.37	1.44	1.53	1.40
	Net debt/RAV	<=75%	61.08%	62.30%	62.95%	62.70%	61.84%	62.18%
S&P	FFO/debt	>=9%	11.28%	11.17%	11.80%	12.19%	12.55%	11.80%
Pension Trustees	Net debt RAV	<=75%	61.08%	62.30%	62.95%	62.70%	61.84%	62.18%

SPN	Credit metric	Threshold	2024	2025	2026	2027	2028	RIIO-ED2 average
Moody's	Adjusted interest coverage ratio	>1.4x	1.34	1.33	1.37	1.43	1.49	1.39
	Net debt/RAV	<=75%	60.98%	62.45%	62.83%	62.63%	62.23%	62.22%
S&P	FFO/debt	>=9%	12.04%	11.46%	12.11%	12.31%	12.33%	12.05%
Pension Trustees	Net debt RAV	<=75%	60.98%	62.45%	62.83%	62.63%	62.23%	62.22%

⁷ CPIH stands for Consumer Prices Index including Owner Occupiers' Housing Costs.

⁸ The AICR ratios have been adjusted to remove the impact of revenue profiling as per the current Moody's methodology

3.3. Notional company financial resilience

It is vital that the RIIO-ED2 investment plan is stress-tested and proven to be financeable under a range of future outcomes. The prescribed stress tests are shown below.

Table 6: Prescribed Ofgem stress tests

Ofgem stress tests			
1	High interest rates (+1%)	8	Low ILD proportion (-5%)
2	Low interest rates (-1%)	9	Totex outperformance (+10%)
3	High inflation (+1%)	10	Totex underperformance (-10%)
4	Low inflation (-1%)	11	Zero RoRE outperformance
5	High CPIH-RPI divergence (+0.5%)	12	RoRE outperformance (+2%)
6	Low CPIH-RPI divergence (-0.5%)	13	RoRE underperformance (-2%)
7	High ILD proportion (+5%)		

The full set of sensitivity analysis results are shown in Appendix 1.

3.4. Discussion of the key outcomes of the scenarios and our views on the notional company financial structure

Under the majority of scenarios the credit metrics remain broadly in line with the Baa1/BBB+ thresholds, although the AICR is at the bottom end of the range. The weakest scenario is the RoRE (-2%) underperformance scenario. Under this scenario the AICR ratio drops to Baa3 levels. This is unsurprising as the scenario significantly reduces Funds from Operation (FFO), a key element of the numerator of the AICR, hence significantly reducing the level of interest cover. Under this scenario management action would be required to maintain an investment grade credit rating.

The outcome of the stress test analysis also shows that under four scenarios; the -10% totex underperformance, low inflation, RoRE underperformance scenarios and zero outperformance scenarios, the AICR falls below the Baa1 threshold levels. This demonstrates that the Ofgem assumption on the outperformance wedge is essential to achieve an AICR at BBB+/Baa1 level. Ofgem's assertion that it would true up a company who did not earn the expected outperformance wedge in RIIO-ED3 is irrelevant for financeability analysis as the ratings agencies will not consider that as part of their financeability assessment. Management remain of the opinion that the financeability assessment should be undertaken based on the allowed cost of capital, not Ofgem's expected cost of capital.

A key modelling assumption for the notional company analysis is that it has 25% CPIH index linked debt. This is significantly above the level which actually exists in the energy sector. While the overall UK energy sector has an average of 25% index linked debt this is skewed by the impact of National Grid Gas which has 97% index linked debt⁹. It should be noted that the majority of this debt was raised via the monoline insurance market which is no longer available. For electricity distribution the position is more pronounced as only three licence networks have index linked debt above the 25% sector average and six companies have no index linked debt at all. In our opinion, if the cost of debt allowance is set based on the sector's average debt costs then the notional structure should reflect the sector's average level of index linked debt. Focusing solely on the electricity distribution sector implies that the correct figure for the proportion of index linked debt should be 10%.

3.5. Financeability under the actual capital structure

We are also required to test the financeability of the company under the existing actual capital structure. The majority of the modelling assumptions are similar to the notional company except for:

- Actual company financial structure and actual cost of debt performance;
- Actual tax payments; and
- Revenue impacts arising from RIIO-ED1 mechanisms are included.

⁹ Financeability in RIIO-GD2 Draft Determinations, OXERA, 2020

The tables below set out the key forecast credit metric ratios for each licence network under the existing capital structure, as derived from the Ofgem Financial Model. The AICR ratios are supported at the beginning of the period due to the forecasted income from incentive outperformance from the last two years of RIIO-ED1. However, in EPN and LPN, management are also forecasting a significant impact from the true up of passthrough costs, particularly National Grid exit charges. This will result in a significant reduction in AICR in the first two years of RIIO-ED2 in LPN in particular. However, we expect the rating agencies to consider the underlying AICR i.e. excluding passthrough timing differences. Removing these adjustments increases the AICR in the first two years of RIIO-ED2 by 0.4x (EPN) and 0.6x (LPN). In addition, the Ofgem model does not capture, at present, all of the adjustments that Moody's make in relation to intercompany loans between entities. If these are taken into account the average debt/RAV over RIIO-ED2 in EPN and SPN would be 71% and 73% respectively.

Table 7: Actual company financial analysis¹⁰

EPN	Credit metric	Threshold	2024	2025	2026	2027	2028	RIIO-ED2 average
Moody's	Adjusted interest coverage ratio	>1.4x	1.39	1.45	1.32	1.26	1.21	1.33
	Net debt/RAV	<=75%	65.50%	66.64%	68.29%	68.64%	67.65%	67.35%
S&P	FFO/debt	>=9%	11.39%	11.47%	11.33%	11.24%	11.25%	11.34%
Pension Trustees	Net debt RAV	<=75%	65.50%	66.64%	68.29%	68.64%	67.65%	67.35%

LPN	Credit metric	Threshold	2024	2025	2026	2027	2028	RIIO-ED2 average
Moody's	Adjusted interest coverage ratio	>1.4x	1.16	1.20	1.37	1.33	1.54	1.32
	Net debt/RAV	<=75%	68.97%	70.98%	71.32%	70.71%	70.11%	70.42%
S&P	FFO/debt	>=9%	9.24%	9.36%	10.58%	10.84%	11.21%	10.25%
Pension Trustees	Net debt RAV	<=75%	68.97%	70.98%	71.32%	70.71%	70.11%	70.42%

SPN	Credit metric	Threshold	2024	2025	2026	2027	2028	RIIO-ED2 average
Moody's	Adjusted interest coverage ratio	>1.4x	1.31	1.53	1.28	1.30	1.31	1.35
	Net debt/RAV	<=75%	67.49%	68.70%	69.30%	69.11%	68.76%	68.67%
S&P	FFO/debt	>=9%	11.11%	11.42%	11.17%	11.36%	11.33%	11.28%
Pension Trustees	Net debt RAV	<=75%	67.49%	68.70%	69.30%	69.11%	68.76%	68.67%

4 Approach to mitigating financeability issues

[Redacted]

¹⁰These ratios do not include the any adjustments for passthrough cost timing differences

5 Appendix 1: Notional company financial stress tests

Sensitivity analysis	Notional Financial Structure			
	Banking Gearing	Moody's Debt / RAV	Moody's Adjusted ICR	S&P FFO/debt
Threshold	<75%	<75%	>1.4x	>9%
Ofgem base case	62.1%	62.1%	1.41	12.0%
High interest rates (+1%)	61.8%	61.8%	1.42	12.0%
Low interest rates (-1%)	62.4%	62.4%	1.39	11.8%
High inflation (+1%)	60.8%	60.8%	1.44	12.1%
Low inflation (-1%)	63.5%	63.5%	1.37	11.9%
High CPIH-RPI divergence (+0.5%)	62.6%	62.6%	1.39	12.0%
Low CPIH-RPI divergence (-0.5%)	62.3%	62.3%	1.40	12.0%
High ILD proportion (+5%)	62.1%	62.1%	1.45	12.0%
Low ILD proportion (-5%)	62.1%	62.1%	1.37	12.0%
Totex outperformance (+10%)	59.3%	59.3%	1.57	13.3%
Totex underperformance (-10%)	62.7%	62.7%	1.31	11.5%
Zero RoRE outperformance	62.4%	62.4%	1.36	11.8%
RoRE outperformance (+2%)	59.8%	59.8%	1.83	13.9%
RoRE underperformance (-2%)	63.4%	63.4%	1.04	10.5%

Sensitivity analysis	Notional Financial Structure			
	Banking Gearing	Moody's Debt / RAV	Moody's Adjusted ICR	S&P FFO/debt
Threshold	<75%	<75%	>1.4x	>9%
Ofgem base case	62.2%	62.2%	1.41	11.8%
High interest rates (+1%)	61.9%	61.9%	1.42	11.8%
Low interest rates (-1%)	62.5%	62.5%	1.40	11.6%
High inflation (+1%)	60.9%	60.9%	1.45	11.9%
Low inflation (-1%)	63.5%	63.5%	1.38	11.7%
High CPIH-RPI divergence (+0.5%)	62.7%	62.7%	1.40	11.8%
Low CPIH-RPI divergence (-0.5%)	62.4%	62.4%	1.41	11.7%
High ILD proportion (+5%)	62.2%	62.2%	1.45	11.8%
Low ILD proportion (-5%)	62.2%	62.2%	1.37	11.8%
Totex outperformance (+10%)	59.5%	59.5%	1.57	12.9%
Totex underperformance (-10%)	62.6%	62.6%	1.33	11.3%
Zero RoRE outperformance	62.5%	62.5%	1.36	11.6%
RoRE outperformance (+2%)	59.9%	59.9%	1.83	13.7%
RoRE underperformance (-2%)	62.4%	62.4%	1.07	10.5%

Sensitivity analysis	Notional Financial Structure			
	Banking Gearing	Moody's Debt / RAV	Moody's Adjusted ICR	S&P FFO/debt
Threshold	<75%	<75%	>1.4x	>9%
Ofgem base case	62.2%	62.2%	1.41	12.1%
High interest rates (+1%)	61.9%	61.9%	1.42	12.1%
Low interest rates (-1%)	62.5%	62.5%	1.39	11.8%
High inflation (+1%)	60.9%	60.9%	1.44	12.2%
Low inflation (-1%)	63.5%	63.5%	1.37	12.0%
High CPIH-RPI divergence (+0.5%)	62.7%	62.7%	1.39	12.0%
Low CPIH-RPI divergence (-0.5%)	62.4%	62.4%	1.40	12.0%
High ILD proportion (+5%)	62.2%	62.2%	1.45	12.0%
Low ILD proportion (-5%)	62.2%	62.2%	1.37	12.1%
Totex outperformance (+10%)	59.4%	59.4%	1.57	13.3%
Totex underperformance (-10%)	62.7%	62.7%	1.31	11.5%
Zero RoRE outperformance	62.5%	62.5%	1.36	11.8%
RoRE outperformance (+2%)	59.9%	59.9%	1.83	14.0%
RoRE underperformance (-2%)	62.5%	62.5%	1.06	10.8%

Note: The above analysis does not include the reversal of revenue profiling adjustments that would be undertaken by Moody's

6 Appendix 2: Detailed financial information

6.1. Notional company

EPN (Notional company (£m) nominal)	2023/24	2024/25	2025/26	2026/27	2027/28	RIIO-ED2 Average
Fast pot expenditure	147	153	156	160	166	156
Non-controllable opex	84	86	90	88	90	88
RAV depreciation	247	249	253	256	256	252
Return	103	106	108	109	110	107
Equity issuance cost	8	0	0	0	0	2
Base revenue DARTs	-19	-6	8	17	28	5
BPI and IQI Additional income	3	3	4	4	4	4
Tax allowance	37	36	43	47	50	43
Other revenue adjustments	6	6	4	3	3	4
Total revenue	616	633	667	684	706	661
Costs	-252	-252	-253	-251	-258	-253
EBITDA	363	381	414	433	448	408

Operating revenue	616	633	667	684	706	661
Less total operating costs	-252	-252	-253	-251	-258	-253
Net cash flow from operations	363	381	414	433	448	408
Less net interest paid (excluding principal inflation accretion)	-76	-79	-80	-80	-78	-79
Less tax paid	-37	-36	-43	-47	-50	-43
FFO	250	266	290	306	320	287

LPN (Notional company (£m) nominal)	2023/24	2024/25	2025/26	2026/27	2027/28	RIIO-ED2 Average
Fast pot expenditure	89	91	93	92	92	91
Non-controllable opex	78	82	82	82	82	81
RAV depreciation	153	153	155	155	153	154
Return	64	66	67	68	69	67
Equity issuance cost	5	0	0	0	0	1
Base revenue DARTs	-1	8	6	16	27	11
BPI and IQI Additional income	2	2	2	2	2	2
Tax allowance	20	19	24	28	31	24
Other revenue adjustments	4	4	2	2	2	3
Total revenue	414	424	432	444	458	435

Costs	-197	-198	-180	-175	-176	-185
EBITDA	216	226	252	269	282	249

Operating revenue	414	424	432	444	458	435
Less total operating costs	-197	-198	-180	-175	-176	-185
Net cash flow from operations	216	226	252	269	282	249
Less net interest paid (excluding principal inflation accretion)	-47	-49	-50	-50	-49	-49
Less tax paid	-20	-19	-24	-28	-31	-24
FFO	149	158	178	191	202	176

SPN (Notional company (£m) nominal)	2023/24	2024/25	2025/26	2026/27	2027/28	RIIO-ED2 Average
Fast pot expenditure	99	103	102	105	105	103
Non-controllable opex	52	53	53	53	54	53
RAV depreciation	162	164	165	165	166	164
Return	67	69	70	71	71	70
Equity issuance cost	5	0	0	0	0	1
Base revenue DARTs	1	5	6	14	20	9
BPI and IQI Additional income	2	2	2	2	3	2
Tax allowance	29	26	31	34	35	31
Other revenue adjustments	4	4	2	2	2	3
Total revenue	420	425	433	446	455	436
Costs	-178	-177	-160	-160	-161	-167
EBITDA	242	247	273	286	295	269

Operating revenue	420	425	433	446	455	436
Less total operating costs	-178	-177	-160	-160	-161	-167
Net cash flow from operations	242	247	273	286	295	269
Less net interest paid (excluding principal inflation accretion)	-49	-51	-52	-52	-51	-51
Less tax paid	-29	-26	-31	-34	-35	-31
FFO	164	170	189	200	209	187

6.2. Actual company

EPN (Actual company £m Nominal)	2023/24	2024/25	2025/26	2026/27	2027/28	RIIO-ED2 Average
Fast pot expenditure	147	153	156	160	166	156
Non-controllable opex	84	86	90	88	90	88
RAV depreciation	247	249	253	256	256	252
Return	103	106	108	109	110	107
Equity issuance cost	8	0	0	0	0	2
Base revenue DARTs	-19	-6	8	17	28	5
Outperformance revenue	0	0	4	4	4	2
Tax allowance	37	36	43	47	50	43
Other revenue adjustments	10	21	4	3	3	8
Total revenue	617	645	667	684	706	664
Costs	-244	-252	-253	-251	-258	-252
EBITDA	373	393	414	433	448	412
Less statutory depreciation	-177	-193	-210	-226	-234	-208
EBIT	196	201	204	207	214	204
Less interest and tax	-125	-125	-129	-136	-143	-132
Profit after tax	70	76	75	71	71	73

Operating revenue	617	645	667	684	706	664
Less total operating costs	-244	-252	-253	-251	-258	-252
Net cash flow from operations	373	393	414	433	448	412
Less net interest paid (excluding principal inflation accretion)	-61	-59	-62	-67	-72	-64
Less tax paid	-37	-41	-45	-47	-49	-44
FFO	275	294	307	318	328	304

LPN (Actual company £m Nominal)	2023/24	2024/25	2025/26	2026/27	2027/28	RIIO-ED2 Average
Fast pot expenditure	89	91	93	92	92	91
Non-controllable opex	78	82	82	82	82	81
RAV depreciation	153	153	155	155	153	154
Return	64	66	67	68	69	67
Equity issuance cost	5	0	0	0	0	1
Base revenue DARTs	-1	8	6	16	27	11
Outperformance revenue	0	0	2	2	3	1
Tax allowance	20	19	24	28	31	24
Other revenue adjustments	-21	-9	2	2	2	-5
Total revenue	387	410	432	445	458	426

Costs	-192	-198	-180	-175	-176	-184
EBITDA	195	212	252	269	282	242
Less statutory depreciation	-109	-115	-124	-132	-136	-123
EBIT	86	96	128	137	146	119
Less interest and tax	-64	-68	-80	-86	-86	-77
Profit after tax	23	28	48	51	60	42

Operating revenue	387	410	432	445	458	426
Less total operating costs	-192	-198	-180	-175	-176	-184
Net cash flow from operations	195	212	252	269	282	242
Less net interest paid (excluding principal inflation accretion)	-39	-42	-46	-49	-46	-44
Less tax paid	-15	-17	-25	-28	-31	-23
FFO	141	153	181	192	205	175

SPN (Actual company £m Nominal)	2023/24	2024/25	2025/26	2026/27	2027/28	RIIO-ED2 Average
Fast pot expenditure	99	103	102	105	105	103
Non-controllable opex	52	53	53	53	54	53
RAV depreciation	162	164	165	165	166	164
Return	67	69	70	71	71	70
Equity issuance cost	5	0	0	0	0	1
Base revenue DARTs	1	5	6	14	20	9
Outperformance revenue	0	0	2	3	3	2
Tax allowance	29	26	31	34	35	31
Other revenue adjustments	4	24	2	2	2	7
Total revenue	418	443	433	446	455	439
Costs	-173	-177	-160	-160	-161	-166
EBITDA	245	265	273	286	295	273
Less statutory depreciation	-81	-88	-97	-104	-107	-96
EBIT	164	177	176	182	187	177
Less interest and tax	-85	-87	-89	-91	-92	-89
Profit after tax	79	90	88	91	96	89
Operating revenue	418	443	433	446	455	439
Less total operating costs	-173	-177	-160	-160	-161	-166
Net cash flow from operations	245	265	273	286	295	273
Less net interest paid (excluding principal inflation accretion)	-56	-55	-56	-56	-56	-56
Less tax paid	-28	-31	-32	-35	-36	-32
FFO	162	179	184	196	203	185