WESTERN POWER DISTRIBUTION

Serving the Midlands, South West and Wales

Business Plan 2023 - 2028

SA-09 Supplementary Annex Financing the plan

July 2021

westernpower.co.uk

SA-09 Financing the plan
Contents

1. Introduction

1.1. The next regulatory price control review period, known as RIIO-ED2, is a five year period and is the second for electricity distribution to be determined using Ofgem's Revenue = Incentives, Innovation and Outputs framework. This price control period runs from 1st April 2023 to 31st March 2028.

1.2. Western Power Distribution (WPD) is required to submit a 200 page main Business Plan document, supplementary annexes, detailed cost tables, financial information and a range of other documents which form our submission under RIIO-ED2 to Ofgem, which will be used to determine allowed revenues for the price control period.

1.3. Our RIIO-ED2 Business Plan has been produced and compiled in line with the following key principles:

- Co-created with our stakeholders and supported by them.
- Our Plan – 'prepared with our stakeholders for delivery by us'.
- Aligned with WPD's purpose and values.
- Affordable for all of our customers.
- Sustainable and will enable net zero before 2050

1.4. The diagram below (figure SA-09.0) shows the structure of the full Business Plan submission with the red box showing where this document fits into the overall suite of documents.

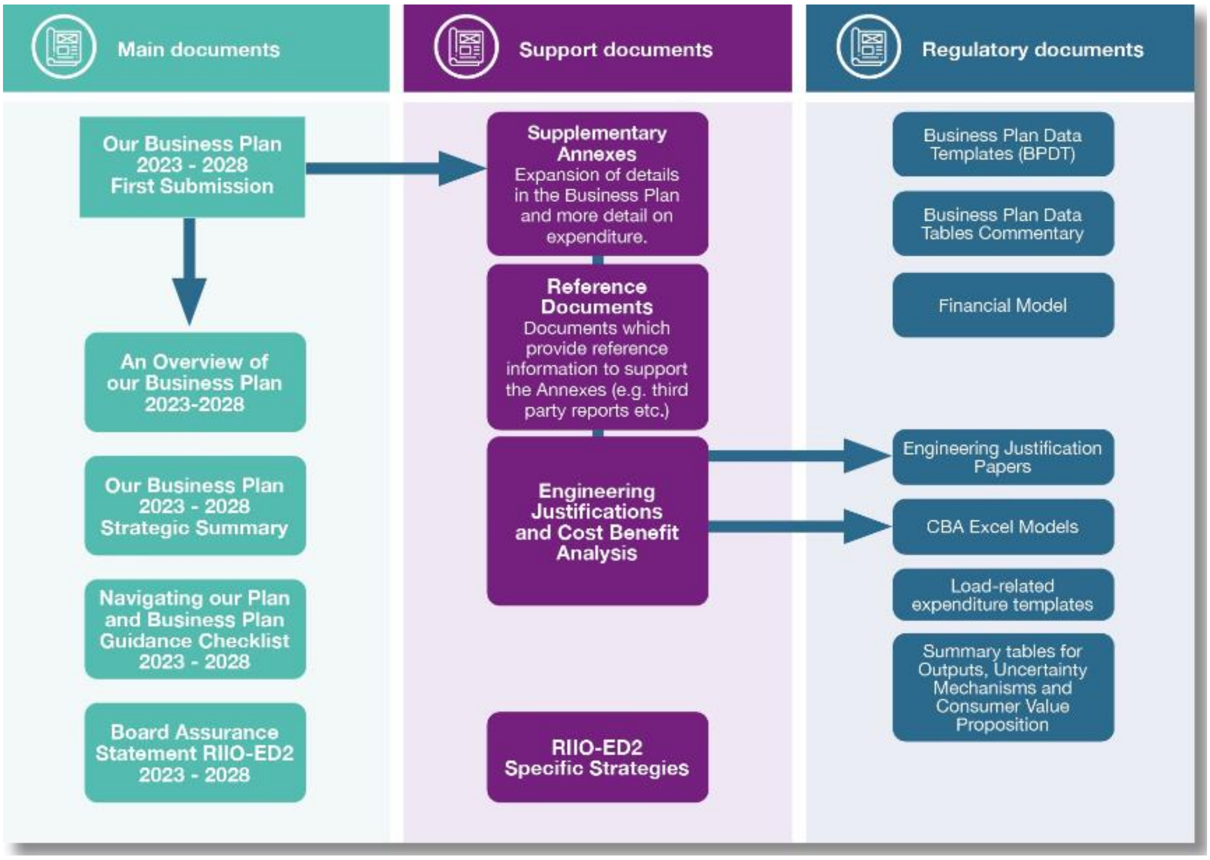


Figure SA-09.0 Business Plan submission structure

1.5. Chapter 9 of Our Business Plan 2023 -2028 First Submission details our approach to our financing proposals through the period from 2023 to 2028, for the four WPD distribution licences of West Midlands, East Midlands, South Wales and South West.

1.6. This document is a Supplementary Annex to Chapter 8.

1.7. We appreciate that the readers of the WPD RIIO-ED2 Business Plan suite of documents will range from regulatory experts and well-informed stakeholders through to new customers who may have had little previous knowledge of WPD.

1.8. This document is aimed at readers who require a more detailed understanding of the commitments that will be delivered. A less detailed description of the outputs can be found in the main RIIO-ED2 Business Plan or the RIIO-ED2 Overview document.

1.9. This document is subdivided into the following sections:

Section	Title	Content
2	Financing our plan	Evaluation of Ofgem's working assumptions, our alternative financing proposals and the reasoning behind our proposals.
3	Appendices	A number of appendices with additional information or containing links to supporting reports and strategies.

2. Financing the plan

Summary

2.1. Our Business Plan explains the work with our stakeholders to build a plan that delivers the outputs they require in an evolving energy landscape.

2.2. Ofgem's current limited proposals for the RIIO-ED2 incentive package do not present a range of opportunities linked to customer deliverables and is largely focussed on downside adjustments to returns. The values in this Business Plan do not, therefore, include any incentive revenues. However, incentive revenues are an important part of a RIIO price control, and the associated financial package, and key to financeability.

2.3. Our proposed RIIO-ED2 financing package will provide the funding to deliver these outputs along with the returns required to compensate investors for risks associated with delivering the agreed outputs over the next five years.

2.4. Our proposal balances the need to attract the investment required to deliver the RIIO-ED2 plans developed with stakeholders, whilst keeping customer bills broadly stable compared to RIIO-ED1 levels.

2.5. The content of this annex builds on Ofgem's Finance Annex of the Sector Specific Methodology Decision (SSMD), which was published on 11 March 2021, and chapter 9 of our second Business Plan, published on 24 March 2021.

Financial projections

2.6. Chapter 6 of our main business plan sets out the details of our RIIO-ED2 expenditure plans, which have been co-developed with our stakeholders. The following tables set out our detailed projections of how WPD's 'best view' translates into the revenues we require to recover from our customers to fund this expenditure over the RIIO-ED2 period, under our proposed financing package.

2.7. We have used WPD's 'best view' of expenditure to determine our forecast revenues as we believe this is the most likely outcome during RIIO-ED2. Our proposed reinforcement volume driver will adjust the totex and hence associated revenue in line with actual outturn reinforcement expenditure.

2.8. The remainder of this chapter sets out the details behind these revenues.

WPD Financial Projections for RIIO-ED2 - Revenue requirement (£m, 2020/21 prices)						
WMID	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**Total**
Fast pot costs	89	91	95	91	98	464
Depreciation on slow pot costs (RAV)	196	194	193	189	185	957
Pension deficit repair payments	28	0	0	0	0	28
Rates, licence fees and smart metering	36	36	36	36	36	178
Transmission exit charges	9	9	9	9	9	47
Financing costs	102	102	102	102	102	509
Equity issuance allowance	7	0	0	0	0	7
Taxation allowance	45	40	39	34	34	192
Total	**511**	**472**	**474**	**462**	**463**	**2,383**

Figure SA-09.1 West Midlands' revenue requirements RIIO-ED2

EMID	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**Total**
Fast pot costs	97	100	103	101	100	501
Depreciation on slow pot costs (RAV)	192	192	192	191	189	957
Pension deficit repair payments	30	0	0	0	0	30
Rates, licence fees and smart metering	35	35	35	34	34	173
Transmission exit charges	9	9	9	9	9	46
Financing costs	102	103	105	105	105	520
Equity issuance allowance	7	0	0	0	0	7
Taxation allowance	44	39	37	33	30	183
Total	**515**	**478**	**480**	**474**	**469**	**2,417**

Figure SA-09.2 East Midlands' revenue requirements RIIO-ED2

WPD Financial Projections for RIIO-ED2 - Revenue requirement (£m, 2020/21 prices)						
SWALES	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**Total**
Fast pot costs	55	58	57	52	54	276
Depreciation on slow pot costs (RAV)	89	89	89	89	88	443
Pension deficit repair payments	11	0	0	0	0	11
Rates, licence fees and smart metering	16	16	16	16	16	81
Transmission exit charges	8	8	8	8	8	40
Financing costs	49	51	52	53	54	259
Equity issuance allowance	3	0	0	4	0	8
Taxation allowance	21	18	16	16	14	83
Total	**252**	**240**	**238**	**238**	**233**	**1,201**

Figure SA-09.3 South Wales' revenue requirements RIIO-ED2

WPD Financial Projections for RIIO-ED2 - Revenue requirement (£m, 2020/21 prices)						
SWEST	2023/24	2024/25	2025/26	2026/27	2027/28	Total
Fast pot costs	81	84	90	86	83	424
Depreciation on slow pot costs (RAV)	131	131	131	132	131	657
Pension deficit repair payments	20	0	0	0	0	20
Rates, licence fees and smart metering	23	23	23	23	23	116
Transmission exit charges	6	6	6	6	6	28
Financing costs	75	78	80	82	84	399
Equity issuance allowance	5	0	0	7	0	11
Taxation allowance	30	26	25	25	21	127
Total	**372**	**349**	**355**	**360**	**348**	**1,783**

Figure SA-09.4 South West's revenue requirements RIIO-ED2

WPD Financial Projections for RIIO-ED2 - Revenue requirement (£m, 2020/21 prices)						
WPD Total	2023/24	2024/25	2025/26	2026/27	2027/28	Total
Fast pot costs	322	334	344	330	335	1,665
Depreciation on slow pot costs (RAV)	608	606	606	601	594	3,014
Pension deficit repair payments	89	0	0	0	0	89
Rates, licence fees and smart metering	110	109	110	109	109	547
Transmission exit charges	32	32	32	32	32	161
Financing costs	328	334	340	342	344	1,689
Equity issuance allowance	21	0	0	11	0	32
Taxation allowance	140	123	115	109	99	586
Total	**1,651**	**1,539**	**1,547**	**1,534**	**1,513**	**7,783**

Figure SA-09.5 WPD's revenue requirements RIIO-ED2

Business financing objectives

2.9. Investment in electricity distribution networks is essential to maintain the standard of performance our customers, both current and future, expect in terms of reliability and security of their electricity supplies and to support the UK's transition to net zero carbon emissions. As set out in this Business Plan, there is therefore a need for continued and significant investment in our electricity distribution network. Ofgem's statutory duty to ensure that efficient companies should be able to finance their activities is key to attracting this future investment[1].

2.10. As part of developing our business plan, we sent questionnaires to our core banks and bond investors which included questions that related to the availability of capital. The general consensus was that funding of this magnitude would be available to WPD, although some reservations were expressed in relation to concerns that a drop in ratings as a result of RIIO-ED2 determinations would impact such availability of capital.

Key financial ratios

2.11. Ofgem has specified that it will be reviewing ratios used by Ratings Agencies to evaluate credit ratings, as part of its evaluation of our Business Plan. We have also used these ratios to assess whether our draft Business Plan is financeable. The ratios Ofgem has stated it will look at[2] are:

- Gearing;
- FFO Interest Cover (including accretions);
- FFO Interest Cover (cash interest);
- Adjusted Interest Cover Ratio (AICR) or PMICR[3];
- Nominal PMICR[4];

[1] "…the Authority has a duty to secure that licensees are able to finance their obligations under the Gas Act and Electricity Act." Appendix 2 - The Authority's powers and duties, p.32, 'Arrangements for responding in the event that an energy network company experiences deteriorating financial health', Ofgem, 12 October 2009.

[2] Financeability Assessment for RIIO-ED2: Further Information; Ofgem slide pack, 26 March 2019, slide 6.

[3] Alternative ratio can be calculated that adjusts numerator for excess fast money (ratio calculated with reference to actual controllable opex rather than fast pot expenditure)

[4] Alternative ratio can be calculated that adjusts numerator for excess fast money (ratio calculated with reference to actual controllable opex rather than fast pot expenditure)

- FFO/Net Debt; and
- RCF/Net Debt.

2.12. Ofgem stated its approach to assessing financeability in 2019[5], which includes:

- Assessing financeability on a notional basis at the individual licensee level;
- Considering a suite of financial ratios, including the average over the five year control and any trend;
- Consideration of qualitative factors alongside financial ratios;
- Setting the notional gearing level at the start of the price control with modelled gearing allowed to fluctuate in accordance with price control cash flows; and
- Carrying out sensitivity testing to assess the resilience of financial ratios under different scenarios.

2.13. We consider Ofgem's approach to financeability and following rating agency methodologies as minimum financeability requirements. Later in this chapter we set out further financeability considerations and the additional stress tests we have performed.

2.14. Ofgem has also stated that licences will continue to include a requirement to maintain an investment grade credit rating on an actual structure basis. The definition of Investment Grade included in WPD's current licence is BBB- or higher by Fitch Ratings Ltd or Standard & Poor's Rating Group, Baa3 or higher by Moodys Investor Services or BBB (low) or higher by DBRS Rating Limited.

2.15. Ofgem's BPFM is intended to generate the credit rating ratios for companies and Ofgem to use when assessing financeability. However, we have identified a number of material issues with Ofgem's current draft of the BPFM methodology which will need to be resolved ahead of our December business plan submission to Ofgem. The most significant issues identified so far are:

- Ofgem's BPFM is using an average of up to 3 historical years' ratios when assessing Adjusted Interest Cover Ratio (AICR), Net debt to RAV, Funds From Operations (FFO)/Net debt and Retained Cash Flow (RCF)/Net debt to derive the rating for each year in RIIO-ED2. This does not follow the approach taken by the rating agencies and has the effect of distorting the outcome of the financeability analysis by not giving equal weight to the ratios in each year of RIIO-ED2. Ofgem has acknowledged this issue and the resulting limitations this brings to its current financeability analysis.
- Ofgem's BPFM assumes an equity injection at the outset of RIIO-ED2 as Ofgem's notional gearing assumption reduces from 65% in RIIO-ED1 to 60% in RIIO-ED2, which we recognise as necessary to perform the notional modelling. However, Ofgem's BPFM then assumes further equity injections are made where gearing increases to 5% above the notional 60% level during the RIIO-ED2 period meaning that the full financeability downsides from higher gearing is not properly considered.
- Ofgem is not using companies' forecast of the cost of new debt from the BPDT in any modelling scenarios but rather using Ofgem's own cost of debt forecast applied to volumes of new debt. Further, in the Actual (BPDT) financeability scenario, Ofgem applies its own cost of debt to its own calculation of the value of new debt required. This does not capture a true actual financeability scenario which reflects the DNOs' actual position.

2.16. As such there are significant limitations for the use of Ofgem's current BPFM at this stage in the process.We have written to Ofgem providing a list of issues we consider need to be reviewed and corrected ahead of our December plan submission.

2.17. We consider that financeability must be considered from a wider perspective, and that critical decisions such as the financing package, should not be based simply on the minimum level of funding which does not "break" a company or based solely on mechanistic outcomes of an individual model, but built up using a wider framework of evidence and regulatory precedent.

[5] Financeability Assessment for RIIO-ED2: Further Information; Ofgem slide pack, 26 March 2019.

2.18. The results of our stakeholder engagement with bond and bank investors clearly demonstrated that predictability of the regulator's methodology and transparency of the regulatory process are key factors that investors take into account when investing in the UK Electricity Distribution sector.

Target ratings

2.19. Ofgem stated in the RIIO-2 SSMD for Gas and Transmission companies that it would not target a particular rating, but that this was a decision for company boards[6].

2.20. We have adopted a target credit rating of BBB+/Baa1 for the notional company, for RIIO-ED2, for the following reasons:

- Ofgem calculates the RIIO-1 Cost of Debt allowance as the trailing average of actual corporate bond yields issued by entities with A and BBB ratings, as reflected by the relevant iBoxx index. It follows that a company would need to have a rating between BBB+ and A- to incur debt costs reflective of this average.
- Ofgem has transitioned the cost of debt allowance for RIIO-ED2 away from the A/BBB blend of the Non-Financials index to the Utilities iBoxx which does not target a specific rating beyond investment grade. The use of this index appears appropriate, however the use of it does create a risk of mismatch between the rating implied in the allowance and the rating of the notional company used in Ofgem's financeability assessment over time. As no determination has been stated for rating in RIIO-ED2, WPD considers it appropriate for a company to target a rating of BBB+/Baa1 to maintain consistency with the RIIO-ED1 approach.
- In Ofgem's RIIO-2 Final Determinations for the Gas and Transmission companies, Ofgem states: "We consider the credit quality of all GD&T notional companies is two notches above minimum investment grade (BBB+/Baa1 equivalent) in the round and that this headroom over the licence requirement means the notional company is adequately resilient to macro-economic and other downside scenarios."[7]
- A rating of BBB+/Baa1 should allow a level of resilience to withstand unforeseen market shocks, without the loss of investment grade status.
- In its Summary of Final Determinations for the recent water companies' price control appeal, the Competition & Markets Authority (CMA) uses the iBoxx A/BBB benchmark over 15- and 20-year trailing averages as a cross check for its estimates for embedded debt and sets an allowance for new debt costs relative to an iBoxx A/BBB 10+ benchmark[8]. Further, the CMA performed its own financeability analysis with reference to a Baa1 target in its Provisional Findings[9].
- The adoption of a lower credit rating for the RIIO-ED2 financeability assessment whilst maintaining a cost of debt allowance based on a higher rating would result in a shortfall of notional debt funding by Ofgem as companies with lower credit ratings would not be able to borrow at comparable rates to the Ofgem allowance.

---

[6] RIIO-2 Sector Specific Methodology Decision – Finance, 24 May 2019, p. 92 (para 4.27)

[7] RIIO-2 Final Determinations – Finance Annex (REVISED), 03 February 2021, p.190: https://www.ofgem.gov.uk/system/files/docs/2021/02/final_determinations_-_finance_annex_revised_002.pdf

[8] p.26, CMA: Anglian Water Services Limited, Bristol Water plc, Northumbrian Water Limited and Yorkshire Water Services Limited Price Determinations, Summary of Final Determinations, 17 March 2021. https://www.gov.uk/government/news/cma-issues-final-decision-on-water-price-controls

[9] Paragraph 10.91, page 700, CMA: Anglian Water Services Limited, Bristol Water plc, Northumbrian Water Limited and Yorkshire Water Services Limited Price Determinations, Provisional findings, 29 September 2020 https://assets.publishing.service.gov.uk/media/5f7c467ee90e070dde709cee/Water_provisional_determinations_report_all_-_September_2020_---_web_-online-2.pdf

Ofgem's working assumptions

2.21. Ofgem set out its working assumptions for the RIIO-ED2 Electricity Distribution price control in the March 2021 Sector Specific Methodology Decision document[10], which included:

Parameter	Ofgem working assumption, CPIH real
Gearing	60%
Cost of Debt	2.087% average for 2023/24-2027/28 period
Cost of Equity	4.400% average for 2023/24-2027/28 period (after a 0.25% deduction for expected outperformance)
Cost of Capital	3.012% average for 2023/24-2027/28 period

Figure SA-09.6 Ofgem Sector Specific Methodology Decision working assumptions

2.22. Ofgem's document "Financeability Assessment for RIIO-ED2: Further Information"[11] lists several 'levers' which we could consider adjusting to improve the financeability of the Business Plan:

- Adjusting Capitalisation rates
- Adjusting Depreciation rate (or Asset life)
- Restriction of dividends
- Refinancing of expensive debt
- Adjusting notional gearing

2.23. We note above that Ofgem considers that refinancing existing debt is an option available to licensees to resolve potential financeability issues. Whilst it is true that current fixed debt rates are considerably lower than historical values, it should be noted that much fixed rate debt, in line with standard market practice, has 'make whole' provisions that need to be paid upon the early termination of the debt, meaning that it is not an efficient mechanism, nor beneficial from a cost perspective, to simply refinance debt at a lower cost when interest rates decline. As set out in more detail in Chapter 2, the RIIO-ED1 Cost of Debt allowance for WPD does not cover our actual cost of debt for RIIO-ED1, which has a direct impact on our earned equity return. We therefore already have a direct and significant incentive to refinance higher cost debt, and have done so wherever possible. We have regularly looked at refinancing existing (more expensive) debt, but this has not been an efficient option in RIIO-ED1 nor will it be to resolve financeability issues for RIIO-ED2; Ofgem has a duty to ensure that efficient companies are able to finance their investment and, if the current working assumptions do not allow for this, then approaches other than refinancing expensive debt should be considered.

2.24. We want to ensure that our business plan is financeable without the need to make changes to asset lives, which Ofgem has previously stated it was not looking to do for RIIO-ED2, and would also undermine its strong track record of regulatory certainty. We set out further detail on this issue in paragraphs 2.61-2.65 below.

[10] RIIO-ED2 Sector Specific Methodology Decision: Annex 3 Finance, 11 March 2021
https://www.ofgem.gov.uk/system/files/docs/2021/03/riio_ed2_ssmd_annex_3_finance.pdf

[11] Financeability Assessment for RIIO-ED2: Further Information; Ofgem slide pack, 26 March 2019.

Financial ratios used in financeability analysis

2.25. Each rating agency uses a slightly different methodology to rate companies. However, the fundamental key financial ratios used will be common to all the rating agencies. Moodys methodology is the most explicit in terms of ratios (although this only accounts for 40% of the weighting of their rating) and we set out below the credit ratio limits used by Moodys when assessing DNOs. We will therefore target credit ratios at all four DNOs, in the long run, that are good investment grade in order to provide resilience again macro downside movements.

Financial ratios		
Primary focus	**A**	**Baa1 - Baa2**
Net debt/Regulated asset value (RAV)	≤68%	68% - 85%
Adjusted interest cover ratio (AICR)	≥1.6x	1.6x - 1.2x
Secondary focus	**A**	**Baa**
Funds from operations (FFO) to Interest	≥4x	2.8x – 4x
FFO/Net debt	≥18%	11% – 18%
Retained cash flow (RCF)/Net debt	≥14%	7% - 14%

Figure SA-09.7 Financial ratios

Source: Boundaries for primary focus ratios from Moodys/Ofgem UK Energy Networks webinar[12]; boundaries for secondary focus ratios as published in Moodys Regulated Electric and Gas Networks methodology scorecard published in March 2017[13].

Note: Moodys states that a deterioration in the secondary ratios will not, in isolation, result in downward rating pressure.

2.26. As stated above, we consider that credit rating ratios should not be the sole influence on the RIIO-ED2 financing package. Credit rating agencies also consider other factors, such as the regulatory environment, and the scale and complexity of investment programmes, and we have also considered this as part of our financing considerations.

Financial ratios calculated using Ofgem's working assumptions

2.27. As required by Ofgem's Business Plan guidance, we have modelled the outcome of the ratios above, using Ofgem's working financial assumptions and the expenditure set out in this Business Plan. Note that the ratios set out in the following tables use our 'best case' view of RIIO-ED2 expenditure. Given the issues with the Actual financeability scenario modelling set out above, we include the results of modelling Ofgem's Base scenario with Notional financeability settings. Note that, as during RIIO-ED1, WPD intends to ensure that our gearing is aligned to Ofgem's notional 60% gearing level every year. However, Ofgem's notional modelling approach only re-sets to 60% if gearing exceeds 65%:

Financial ratios under Ofgem assumptions WMID	2023/24	2024/25	2025/26	2026/27	2027/28	RIIO-ED2 AVERAGE
Net debt/Regulated asset value (RAV)	60.2%	60.7%	61.3%	61.8%	62.5%	**61.3%**
Adjusted interest cover ratio (AICR)	1.40	1.41	1.42	1.44	1.46	**1.43**
FFO to Interest (including accretions)	4.08	4.01	3.99	3.96	3.94	**3.99**
FFO/Net debt	13.4%	12.8%	12.2%	11.6%	10.9%	**12.2%**
Retained cash flow (RCF)/Net debt	11.0%	10.3%	9.8%	9.2%	8.5%	**9.8%**

Figure SA-09.8 West Midlands' financial ratios

12 Slide 16, Moodys Investors Service, UK Energy Networks, EMEA infrastructure Finance Team, 9 September 2020.

13 Moodys Investors Service, Rating Methodology, Regulated Electric and Gas Networks, March 16, 2017.

Financial ratios under Ofgem assumptions EMID	2023/24	2024/25	2025/26	2026/27	2027/28	RIIO-ED2 AVERAGE
Net debt/Regulated asset value (RAV)	60.6%	61.5%	62.4%	63.2%	63.9%	**62.3%**
Adjusted interest cover ratio (AICR)	1.39	1.39	1.39	1.41	1.42	**1.40**
FFO to Interest (including accretions)	3.99	3.90	3.85	3.82	3.81	**3.87**
FFO/Net debt	12.9%	12.2%	11.6%	11.0%	10.5%	**11.7%**
Retained cash flow (RCF)/Net debt	10.5%	9.8%	9.2%	8.7%	8.1%	**9.3%**

Figure SA-09.9. East Midlands' financial ratios

Financial ratios under Ofgem assumptions SWALES	2023/24	2024/25	2025/26	2026/27	2027/28	RIIO-ED2 AVERAGE
Net debt/Regulated asset value (RAV)	61.6%	63.4%	64.8%	65.8%	61.1%	**63.3%**
Adjusted interest cover ratio (AICR)	1.38	1.36	1.35	1.35	1.49	**1.39**
FFO to Interest (including accretions)	3.84	3.65	3.52	3.47	3.76	**3.65**
FFO/Net debt	12.1%	11.0%	10.2%	9.7%	10.2%	**10.6%**
Retained cash flow (RCF)/Net debt	9.7%	8.7%	7.9%	7.4%	7.8%	**8.3%**

Figure SA-09.10 South Wales' financial ratios

Financial ratios under Ofgem assumptions SWEST	2023/24	2024/25	2025/26	2026/27	2027/28	RIIO-ED2 AVERAGE
Net debt/Regulated asset value (RAV)	61.4%	62.9%	64.6%	65.8%	61.2%	**63.2%**
Adjusted interest cover ratio (AICR)	1.42	1.39	1.38	1.37	1.51	**1.42**
FFO to Interest (including accretions)	3.79	3.61	3.48	3.41	3.68	**3.59**
FFO/Net debt	11.9%	10.9%	10.0%	9.4%	9.9%	**10.4%**
Retained cash flow (RCF)/Net debt	9.5%	8.6%	7.7%	7.1%	7.5%	**8.1%**

Figure SA-09.11 South West's financial ratios

2.28. The overall credit ratings above are being generated by Ofgem's BPFM. However, we note that the Adjusted Interest Cover Ratio (AICR) from Ofgem's model for each of the WPD DNOs is a value of 1.4 on average over RIIO-ED2 which, according to the Moodys ratios we set out above, would place all 4 WPD DNOs in the mid-range of the Baa2-Baa1 category. This is considerably lower than the credit rating being generated by Ofgem's model, and below WPD's target of ratios at the top of the range of the Baa values shown in the table of Moodys ratios.

Ofgem's suggested set of common stress test scenarios

2.29. In its Sector Specific Methodology Decision document for Gas and Transmission companies, Ofgem stated that it expects all network companies to run the scenarios below as a minimum as part of their July business plan submissions[14]: These stress tests were reiterated by Ofgem in the RIIO-ED2 SSMD.

Factor	Ofgem Proposed Level (relative to working assumption level)
Macro Scenarios	
Interest rate scenarios	±1% compared to forward implied rates as per the base case in each year (for RFR, Libor/SONIA and iBoxx inputs)
CPIH scenarios	±1% in each year
RPI-CPIH divergence scenarios	±0.5% from assumed RPI/CPIH wedge
Performance Scenarios	
Totex performance	±10%
RoRE	±2% compared to base assumption
Other Scenarios	
Proportion of inflation linked debt	±5%*

Figure SA-09.12 Ofgem suggested scenarios from the Sector Specific Methodology Decision

* Compared to notional company assumption of 25% for notional company analysis and compared to actual company proportion forecast at end of RIIO-1 for actual company analysis.

2.30. The full results of these stress tests are set out in Appendix A01, alongside notes regarding the shortcomings in Ofgem's modelling of several of these scenarios.

2.31. Ofgem has asked us to test these different scenarios to understand their impact on the financeability of our Business Plan. The key factors that we review to measure the financeability of the plan are the credit ratio limits that we must meet. However, alongside these calculated metrics, it should be noted that the Return on Regulatory Equity (RoRE) is a key measure for investors and it is important that our Business Plan is both financeable and, essentially, attractive enough to investors to generate the necessary investment.

2.32. Moodys published approach to assessing credit risk for regulated electricity and gas networks makes it clear that ratios are only one of five factors it considers important, and that leverage and coverage ratios only hold 40% of the weighting of these factors in its consideration.

2.33. Evidence from our investor survey includes statements from investors that overly harsh judgment on allowed returns for the distribution companies may limit investor appetite, and that investors consider the risk of adverse regulatory tightening, especially on allowed return, and a less favourable regulatory environment as significant risks facing the UK Electricity Distribution sector.

In addition, Ofgem's approach to the RIIO-ED2 financial package does not recognise the importance of incentives in the price control framework, and the weighting that rating agencies and investors place upon this. Ofgem's current limited proposals for the RIIO-ED2 incentive package do not present a range of opportunities linked to customer deliverables and is largely focussed on downside adjustments to returns.

[14] Paragraph 4.80 and table 19, p.96, RIIO-ED2 Sector Specific Methodology Decision – Finance, 24 May 2019

Outcome of Ofgem stress test scenarios

2.34. We have not included the results of Ofgem's stress test scenarios within this main document at this stage. As we have flagged earlier in this chapter there are a number of significant issues with the current models issued by Ofgem and the results are not meaningful at this stage.

2.35. To comply with the business plan guidance we have included the results of Ofgem's stress test scenarios in our plan. The full details are included in Appendix A01.

2.36. It is important to recognise the significant additional risks WPD would be taking on with the high level of expenditure we have proposed is subject to an uncertainty mechanism in RIIO-ED2 in response to stakeholder feedback and the resulting increased likelihood that additional allowances to recover expenditure are not received, resulting in a Totex overspend against allowances, and the consequent impact on financeability associated with this.

Any additional stress tests WPD considers are required at this stage

2.37. We consider that the following additional scenarios should also be considered:

- Evaluation of financeability under our Best case scenario, in addition to our Base case – i.e. including/excluding variant costs
- Evaluation of financeability under a range of sharing factors between 50% and 80% for Totex under/overspends
- Evaluation of the Ofgem sensitivity scenarios using WPD's proposed financial assumptions (which exclude any outperformance).

Best case scenario

2.38. Chapter 7 of the Business Plan sets out the level of expenditure under the uncertainty mechanisms WPD is proposing which takes us to our Best view of expenditure in this Business Plan. WPD has designed a Business Plan that facilitates the government's Net Zero targets. Whilst out Base View presents the lowest required investment to meet Net Zero, based on our intensive Stakeholder Engagement process, our Best view results in an additional £473m which our stakeholders have told us they consider to be the most appropriate level of investment. As a result, we consider that the Best view represents our most likely level of expenditure necessary to meet our stakeholder required outputs and this higher level of investment will result in more financeability challenges. It is therefore critical that financeability assessment is done on the Best case, and the ratios set out above use WPD's Best case expenditure.

Sharing factors

2.39. The sharing factors are still being considered by Ofgem and we expect further clarification later this year, which we then reflect in our December update. The uncertainty around the sharing factor carries a level of risk which should be considered in financeability modelling.

WPD's financing proposals

2.40. In light of the above, our proposed financing assumptions in the following section will ensure that we are able to finance the significant investment required to address the challenges RIIO-ED2 will bring, including the transition to Net Zero, whilst addressing the risks and uncertainty within the RIIO-ED2 price control.

WPD's proposed assumptions, having evaluated Ofgem's SSMD Finance Annex proposals

2.41. WPD is proposing our own set of financing assumptions for RIIO-ED2 which we can demonstrate reflect investor expectations and use the latest relevant market information...

Cost of debt

2.42. We are not proposing a fundamental alternative to Ofgem's Cost of Debt working assumption at this stage. We note, however, that further work is required, particularly in the area of additional costs of borrowing and small company premium. In Appendix A02 we include a NERA report commissioned by the ENA which provides evidence that additional costs of borrowing are in the range of 38-48bps, compared to Ofgem's 25 bps assumption, with an additional 6 bps required to reflect the small company premia licensees face[15].

2.43. In relation to cost of debt, we also note that Ofgem's proposed switch from the using the A and BBB iboxx indices to the iboxx utilities index has introduced the risk that the average rating of this index will no longer reflect the ratios under which Ofgem's financeability assessment has been performed, and the associated risk that the cost of debt may therefore no longer be adequate. It is important that is additional risk is recognised by ensuring adequate headroom in any financeability assessment.

Cost of equity

2.44. WPD commissioned Frontier economics to provide an estimate for the range of our cost of equity over RIIO ED2, which has been considered as part of our overall cost of capital estimate. Frontier's report is presented in Appendix A03[16.] In summary, we consider that the appropriate Cost of Equity for RIIO-ED2 is 5.8%. This broadly aligns with the bottom of the range determined by Oxera in their report commissioned for the ENA which is presented in Appendix A04.

2.45. We consider that the cost of equity Ofgem is proposing is significantly below contemporaneous market evidence, as supported by both the Frontier and Oxera reports. Oxera's report for the ENA[17] concludes that Ofgem has made errors that result in a significant underestimate of the cost of equity, specifically:

- Ofgem's estimate of the risk free rate using spot yields on government bonds violates the assumption that investors can borrow and lend at the RfR as non-government investors cannot borrow at such rates;
- In estimating Total Market Returns (TMR), Ofgem uses unadjusted estimates of historical CPI, creating a series of inflation data that is inconsistent across time, and Ofgem uses geometric averaging with a subjective uplift to estimate the arithmetic average TMR;
- In addition to mathematical errors made in their debt beta calculation, Ofgem/CEPA misrepresent debt beta arguments and incorrectly place greater weight on the evidence of UK water companies than European energy networks.

Outperformance adjustment

2.46. As we have stated in all our responses to Ofgem's methodology consultation for RIIO-2, we disagree in principle with Ofgem's reduction of 25 bps to the cost of capital for future outperformance. We believe that companies should always strive for efficiency and innovation, Particularly at such a critical time in the Net Zero transition, there are key economic arguments that a regulator should 'aim up' when setting the cost of capital to ensure that the task is

---

[15] Additional costs of borrowing and Small Company Premium at RIIO-ED2, NERA, 15 June 2021.

[16] Cost of Equity assessment for RIIO-ED2, A report prepared for WPD, Frontier economics, May 2021.

[17] The cost of equity for RIIO-ED2, Prepared for Energy Networks Association, Oxera, 4 June 2021.

achieved. This is expanded in the Frontier paper appended to our Business Plan[18]. These include:

- Aiming up is an optimal regulatory response to the uncertainty in estimating the cost of equity; the consequences arising from setting the allowed return too low are far greater than the consequences of setting it too high;
- Aiming up is common practice in UK regulatory regimes.
- The consumer benefit of under-remuneration in the form of a lower allowed return may easily be more than offset by the cost of only slightly worse quality of service as a result of under investment.

2.47. The CMA has also reaffirmed its commitment to aiming up in its recent findings on the price controls for water companies, where it stated that a cost of equity 0.25% above the mid-point of its range of possible estimates was needed to secure finance and to promote investment in the sector in the long-term[19].

2.48. Considering all these factors outlined above, WPD's proposed financial parameters for the RIIO-ED2 price control are:

Parameter	WPD proposed financial parameters, CPIH real
Gearing	60%
Cost of Debt	2.087% average for 2023/24-2027/28 period
Cost of Equity	5.8% average for 2023/24-2027/28 period
Cost of Capital	3.572% average for 2023/24-2027/28 period

Figure SA-09.13 WPD's proposed financial parameters

Cost of equity calculation

2.49. We have based our Cost of equity assumption above based on the findings in Frontier's report, also noting that our proposed cost of equity broadly aligns to the bottom of the range in the cost of equity report prepared by Oxera for the ENA, also attached at Appendix A04[20].

WPD Cost of equity components	Low	High
Notional gearing	60%	60%
Observed gearing	50%	45%
Risk-free-rate	-1.6%	-0.9%
Equity risk premium	8.2%	8.3%
Total market return	6.6%	7.4%
Unlevered beta	0.3	0.4
Debt beta	0.1	0.1
Asset beta	0.4	0.4
Equity beta	0.7	0.9
Post-tax cost of equity	**4.33%**	**6.45%**
Mid-point	5.4%	
Aiming up	0.4%	
Point estimate	**5.8%**	

Figure SA-09.14 WPD's cost of equity components

[18] Further analysis of Ofgem's proposal to adjust baseline returns, A report prepared for the ENA, Frontier Economics, September 2020.
[19] p.4, CMA: Anglian Water Services Limited, Bristol Water plc, Northumbrian Water Limited and Yorkshire Water Services Limited Price Determinations, Summary of Final Determinations, 17 March 2021.
[20] The cost of equity for RIIO-ED2, Prepared for Energy Networks Association, Oxera, 4 June 2021.

2.50. The detail behind the above parameters is set out in Frontier's report, however we note the following key assumptions:

- The calculation of the risk free rate is in line with the recent CMA PR19 redetermination, considering both Bank of England index linked gilts and corporate bonds using the iBoxx AAA index to provide a lower and upper bound, both averaged over a 6-month period.
- The range for Total market return has been calculated using the historical ex post approach, considering a number of averaging methods, holding periods and two methods for deflating nominal historical returns.
- The lower bound for unlevered beta is based on the GB water networks which tend to be exposed to less risk than energy networks (as per the CMA PR19 redetermination); the upper bound is based on National Grid and other European comparators.
- Debt beta assumptions are per the CMA PR19 decision.

2.51. We asked NERA to review WPD's financeability under WPD's scenarios set out above, and to perform stochastic analysis to assess the impact of a range of different scenarios on the credit rating of WPD's licensees.

2.52. The key results of the financeability assessment using WPD's parameters and scenarios above are set out below. NERA's full report is included in Appendix A05.

2.53. Outcomes under WPD's own scenario, generated from Ofgem's financial model, are presented below, noting the shortcomings set out above. We will continue to work with Ofgem to resolve the issues with the BPFM and will include a full assessment, which we are satisfied aligns with our internal modelling, in our December Business Plan :

Financial ratios under WPD assumptions WMID	2023/24	2024/25	2025/26	2026/27	2027/28	RIIO-ED2 AVERAGE
Net debt/Regulated asset value (RAV)	65.1%	61.0%	62.1%	63.1%	64.3%	**63.1%**
Adjusted interest cover ratio (AICR)	1.58	1.49	1.46	1.45	1.42	**1.48**
FFO to Interest (including accretions)	3.89	3.92	4.13	4.04	3.90	**3.97**
FFO/Net debt	13.5%	13.3%	12.3%	11.5%	10.7%	**12.3%**
Retained cash flow (RCF)/Net debt	10.4%	9.6%	8.7%	8.1%	7.4%	**8.8%**

Figure SA-09.15 Financial ratios under WPD assumptions – West Midlands

Financial ratios under WPD assumptions EMID	2023/24	2024/25	2025/26	2026/27	2027/28	RIIO-ED2 AVERAGE
Net debt/Regulated asset value (RAV)	65.5%	61.5%	62.5%	63.5%	64.5%	**63.5%**
Adjusted interest cover ratio (AICR)	2.06	2.04	2.17	2.03	1.92	**2.04**
FFO to Interest (including accretions)	4.94	4.97	4.96	4.64	4.37	**4.78**
FFO/Net debt	13.2%	13.3%	13.1%	12.2%	11.4%	**12.6%**
Retained cash flow (RCF)/Net debt	9.5%	9.0%	8.9%	8.2%	7.6%	**8.7%**

Figure SA-09.16 Financial ratios under WPD assumptions – East Midlands

Financial ratios under WPD assumptions SWALES	2023/24	2024/25	2025/26	2026/27	2027/28	RIIO-ED2 AVERAGE
Net debt/Regulated asset value (RAV)	65.3%	61.9%	63.7%	64.6%	65.9%	**64.3%**
Adjusted interest cover ratio (AICR)	2.25	1.97	1.69	1.78	1.60	**1.86**
FFO to Interest (including accretions)	5.15	4.85	4.23	4.16	3.88	**4.45**
FFO/Net debt	13.6%	12.7%	11.3%	11.1%	9.9%	**11.7%**
Retained cash flow (RCF)/Net debt	10.3%	8.9%	7.7%	7.6%	6.6%	**8.2%**

Figure SA-09.17 Financial ratios under WPD assumptions – South Wales

Financial ratios under WPD assumptions SWEST	2023/24	2024/25	2025/26	2026/27	2027/28	RIIO-ED2 AVERAGE
Net debt/Regulated asset value (RAV)	66.0%	61.7%	63.7%	64.9%	66.1%	**64.5%**
Adjusted interest cover ratio (AICR)	2.01	2.12	1.89	2.10	1.91	**2.01**
FFO to Interest (including accretions)	4.11	4.32	4.02	4.19	3.97	**4.12**
FFO/Net debt	12.8%	12.9%	11.3%	11.1%	10.0%	**11.6%**
Retained cash flow (RCF)/Net debt	9.1%	8.6%	7.3%	7.4%	6.4%	**7.8%**

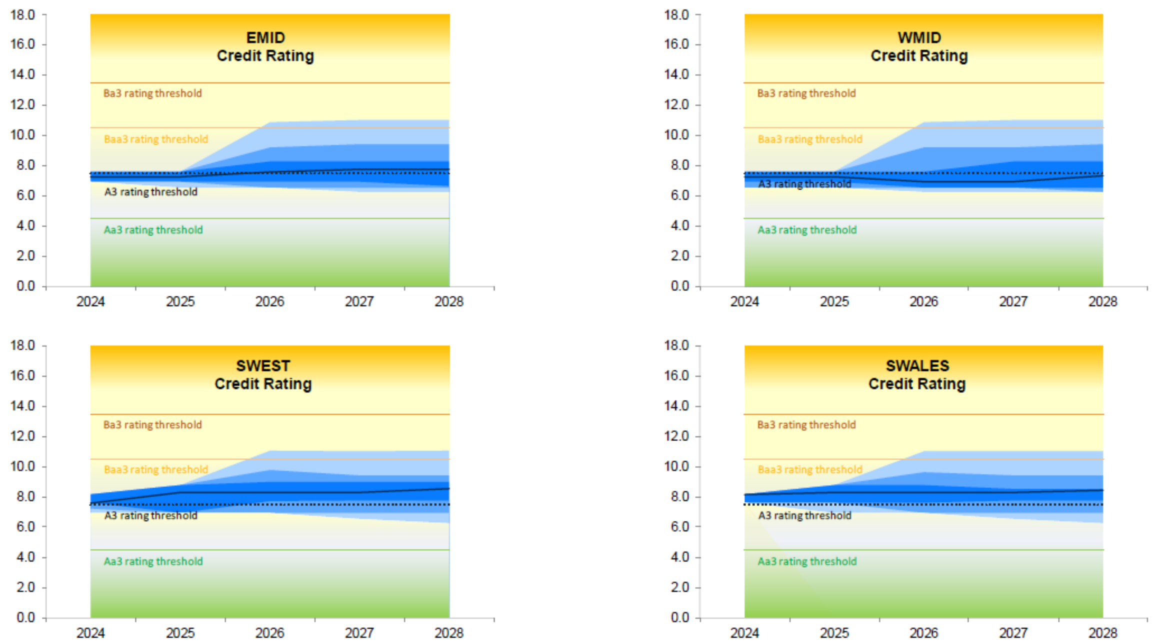
Figure SA-09.18 Financial ratios under WPD assumptions – South West

2.54. NERA's stochastic analysis demonstrates that there is a substantial downside risk on credit ratings, including the risk of sub investment grade rating by the end of ED2 for at least two of the WPD DNOs. NERA's full report is included in Appendix A06.

2.55. The charts below show the results of NERA's stochastic analysis for WPD. Note that NERA has made adjustments to Ofgem's model to derive the results below, where it considers Ofgem's model contained fundamental errors:

Scenario 1: Ofgem March 2021 SSMD financial parameters

Ofgem SSMD COE parameters, 3% notional dividends, 0.25% expected RoRE outperformance, 25% share of ILD, no equity issuance threshold, WPD central view on variant totex



Ofgem's March 2021 SSMD financial parameters create substantial downside risk on credit rating during ED2, with all WPD DNOs falling below investment grade as early as Y3 of ED2 in the 95th percentile. Ofgem's base case also assumes 25bps RoRE expected outperformance, which is not guaranteed, and hence ratios may be even weaker.

www.nera.com

Confidence Levels: 50%- 75% - 88% - 95%

Figure SA-09.19 Extract from NERA report Scenario 1: Ofgem March 2021 SSMD financial parameters

2.56. NERA's modelling demonstrates that under Ofgem's notional scenario there is a substantial downside risk on rating including risk of sub investment grade rating by the end of RIIO-ED2 (see NERA statement under figure SA-09.19).

2.57. Under WPD's own finance assumptions, i.e. using WPD's proposed cost of equity and removing Ofgem's 25bps expected outperformance adjustment, NERA's modelling shows that the downside risk on rating is mitigated (see NERA statement on page 13 in Appendix A06).

WPD's proposed Totex capitalisation and depreciation rates

Totex capitalisation rates

2.58. Our core expenditure costs (Totex costs) are split between fast pot and slow pot:

- fast pot costs incurred in RIIO-ED2 are recovered in RIIO-ED2, in the year in which they are incurred;
- slow pot costs incurred in RIIO-ED2 are spread over a number of years (known as RAV depreciation) to reflect the long-term value of network assets.

2.59. Our current assumption in this Business Plan is that 75% of Totex will be added to the RAV (i.e. as slow pot costs). This is a slight decrease from WPD 80% capitalisation rate in RIIO-ED1, where WPD's ED1 capitalisation rate is the highest of all the electricity distribution networks. This slight downwards shift is reflective of the greater levels of expenditure on shorter lived assets, associated with, for example, cyber security requirements and also DSO and flexibility which facilitate analysis, information provision and more efficient operation of the whole system.

2.60. It should also be noted that this decrease in capitalisation rates has helped to improve the financeability of our plan. Changes to capitalisation rates are one of the 'levers' Ofgem highlights for companies to consider adjusting to improve the financeability of the Business Plan and we have therefore taken this step as part of our approach to ensure that our plan is able to be financeable.

Asset lives

2.61. The default assumed asset lives arrangement in the RIIO-ED2 price control period is for all new electricity assets to be depreciated over 45 years, whilst all existing assets continue to be depreciated over the current lives of 20 years - 45 years depending upon the year of investment.

2.62. As stated earlier, asset lives are one of the levers Ofgem lists which can be used to improve financeability. In January 2011, Ofgem consulted on regulatory asset lives for electricity distribution assets; the outcome of this consultation was a decision to use an average expected economic asset life of 45 years for new assets from the commencement of RIIO-ED1. As part of this review, Ofgem stated that, in the longer term, electricity distribution asset lives should more closely reflect the useful or economic asset life[21]. Ofgem's decision letter also stated that the RIIO approach of using economic lives to determine the regulatory depreciation profile represents a sustainable long-term policy. Ofgem stated that its proposals were supported by consumer representatives.

2.63. We are of the view that, in light of the above, Ofgem should set the financial parameters so that business plans are financeable without the need to make changes to asset lives.

2.64. Our stakeholder engagement has indicated that regulatory certainty and predictability is a key factor for investors. We also firmly believe that the detailed review of asset lives Ofgem conducted in 2011 was intended as a long term policy decision and should not be reopened to solve financeability issues; this could have the unintended consequence of increasing returns over the longer period by undermining Ofgem's reputation for predictability.

2.65. WPD has therefore continued with the asset life assumption at the end of RIIO-ED1, with an asset life of 45 years for all RAV additions in RIIO-ED2.

---

[21] p.3, 'Decision letter on the regulatory asset lives for electricity distribution assets', Ofgem, 31 March 2011. https://www.ofgem.gov.uk/sites/default/files/docs/2011/03/assetlivedecision_0.pdf

Evolution of the Regulatory Asset Value (RAV)

2.66. Using the asset lives and capitalisation approach set out above, the tables below show how the value of the RAV evolves over the RIIO-ED2 period under our Best view.

Evolution of the RAV WMID £m, 2020/21 prices	2023/24	2024/25	2025/26	2026/27	2027/28
Opening RAV	2,706	2,777	2,857	2,948	3,034
Additions	267	274	285	274	293
Depreciation	-196	-194	-193	-189	-185
Closing RAV	**2,777**	**2,857**	**2,948**	**3,034**	**3,142**

Figure SA-09.20 Evolution of the RAV – West Midlands

Evolution of the RAV EMID £m, 2020/21 prices	2023/24	2024/25	2025/26	2026/27	2027/28
Opening RAV	2,706	2,804	2,912	3,028	3,140
Additions	290	300	308	303	301
Depreciation	-192	-192	-192	-191	-189
Closing RAV	**2,804**	**2,912**	**3,028**	**3,140**	**3,252**

Figure SA-09.21 Evolution of the RAV – East Midlands

Evolution of the RAV SWALES £m, 2020/21 prices	2023/24	2024/25	2025/26	2026/27	2027/28
Opening RAV	1,286	1,363	1,449	1,530	1,597
Additions	166	175	170	155	161
Depreciation	-89	-89	-89	-89	-88
Closing RAV	**1,363**	**1,449**	**1,530**	**1,597**	**1,670**

Figure SA-09.22 Evolution of the RAV – South Wales

Evolution of the RAV SWEST £m, 2020/21 prices	2023/24	2024/25	2025/26	2026/27	2027/28
Opening RAV	1,979	2,092	2,214	2,352	2,477
Additions	244	253	269	257	250
Depreciation	-131	-131	-131	-132	-131
Closing RAV	**2,092**	**2,214**	**2,352**	**2,477**	**2,596**

Figure SA-09.23 Evolution of the RAV – South West

Evolution of the RAV WPD Total 2020/21 Prices	2023/24	2024/25	2025/26	2026/27	2027/28
Opening RAV	8,677	9,036	9,432	9,858	10,248
Additions	966	1,002	1,032	990	1,005
Depreciation	-608	-606	-606	-601	-594
Closing RAV	**9,036**	**9,432**	**9,858**	**10,248**	**10,659**

Figure SA-09.24 Evolution of the RAV – WPD Total

Dividend and equity issuance policies

2.67. We note that Ofgem has set a working assumption of a 3% dividend yield, which differs from the RIIO-1 assumption of a 5% dividend yield, and does not align with our investor expectations of stable dividend growth. Our Business Plan currently facilitates a dividend yield of up to 5.8%, which aligns with the 5.8% Cost of Equity in the WPD WACC assumption included as part of our alternative financing assumptions above, and is in line with our historical dividend payment levels. We will continue to review our assumptions for inclusion in our December submission of this Business Plan.

2.68. We have not assumed any equity issuance as part of our Business Plan under our actual company modelling for this plan. However, the notional modelling in Ofgem's BPFM assumes equity issuance at the start of RIIO-ED2 to bring gearing down from the RIIO-ED1 assumption of 65% to the RIIO-ED2 assumption of 60% for all scenarios, plus the modelling of WPD's specific scenario in the BPFM results in further equity issuances for South Wales and South West in 2026/27, and the modelling of the Base case scenario in the BPFM results in further equity issuances for South Wales and South West in 2027/28, in both cases to bring gearing back down to 60% where it would otherwise exceed 65%, as discussed above.

2.69. As during RIIO-ED1, WPD intends to ensure that our gearing is aligned to Ofgem's notional gearing level.

WPD's revenue requirements for RIIO-ED2

2.70. We have limited guidance from Ofgem in relation to the presentation of customer bills. We have therefore replicated the approach we used in RIIO-ED1 as closely as possible

2.71. Our presentation of customer bills is therefore made-up of the following items:

- fast pot costs (including normal pensions);
- depreciation (including normal pensions) on RIIO-ED2 and previous price control slow pot costs;
- pensions deficit repair payments (including true-ups from previous price controls);
- rates and licence fees;
- transmission exit charges;
- return;
- equity issuance allowances;
- tax payment allowances.

2.72. The graphic below shows our analysis of the key components of WPD's customer bills for RIIO-ED2:

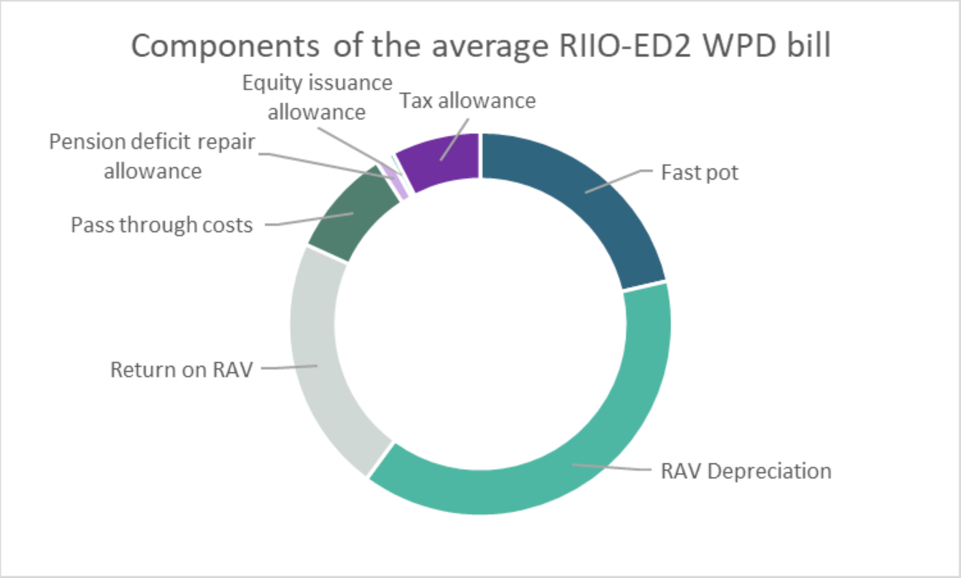


Figure SA-09.25 Key components of WPD's customer bills

Details of the sources and uses of cash during RIIO-ED2

2.73. Our work and investment in the network during the RIIO-ED2 period will require funding. This funding will largely come from revenues but will also require new capital to be raised. As in RIIO-ED1 we will provide detailed information showing the sources and uses of cash during RIIO-ED2 for our four DNOs in our July 2021 Business Plan, once the issues with the current Ofgem models have resolved.

Availability of capital

2.74. We will need to raise a significant amount of capital during RIIO-ED2 to fund our RIIO-ED2 Totex expenditure of approximately £6.2bn, which will prove challenging. Significant capital markets exist in the UK, the United States and in Europe and other markets that ensure that, relative to the size of the markets, the capital to be raised should be modest and financeable, provided that the RIIO-ED2 package, including the allowed cost of capital and the opportunity to earn incentive revenues, is set at an appropriate rate to attract this investment.

2.75. In its report 'Further analysis of Ofgem's proposal to adjust baseline returns'[22], Frontier Economics explains that the societal costs that arise from setting the allowed return too high or too low are not symmetrical. The report highlights that setting the allowed return too low creates a material risk of underinvestment which, in the energy sector, would have socio-economic implications including lower investment in low-carbon technology, delayed transition to carbon neutral goals, curtailment cost, higher failure rates through older assets resulting in lost load and electricity not supplied.

2.76. Such consequences of under investment are considered more harmful to customer interests than marginally higher than necessary network charges as a result of setting the return too high, creating a rational preference for regulators to "aim up" when selecting their point estimate for the cost of capital from their estimated range.

Further details on the impact on customer bills

2.77. Modelled changes in customers' bills are driven by a number of key areas of expenditure, and by the financial parameters, including the working assumptions set by Ofgem. These may include:

- The switch to CPIH from RPI inflation required by Ofgem
- Changes to Incentives revenues, if these are included in the base line modelling;
- Changes to Totex allowances;
- Changes to pass through costs;
- Changes to pension deficit repair allowances;
- Changes to the allowed Cost of capital (WACC); and
- Changes to Totex capitalisation and asset lives.

Our current calculations estimate that the impact of the increased expenditure set out in WPD's base view outlined above would result in an approximate £1.52 annual increase on the average domestic bill in 2022/23, if all other elements of the price control were unchanged. However, based on our latest analysis this increase is more than offset by changes to the financing parameters and other aspects of the RIIO-ED2 price control process. The combination of these changes means that we intend to keep the average RIIO-ED2 domestic customer bill broadly in line with the bill at the end of RIIO-ED1.

[22] Further analysis of Ofgem's proposal to adjust baseline returns", A report prepared for the ENA, Frontier Economics, September 2020.

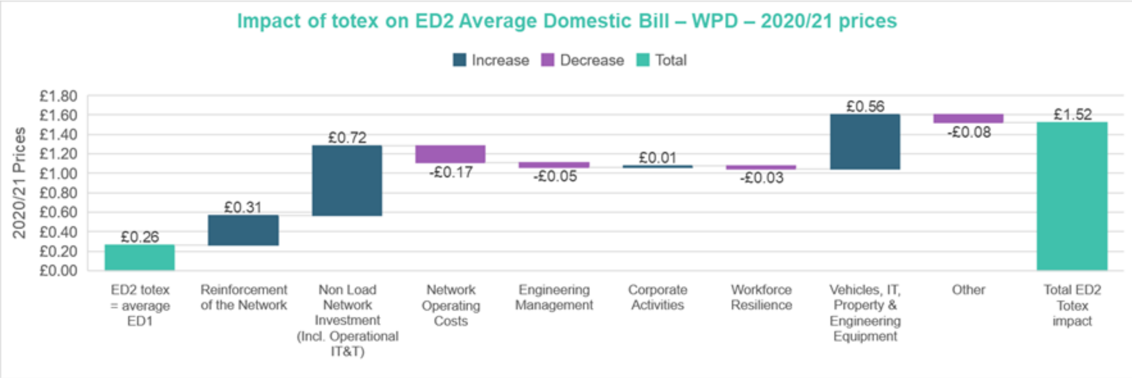


Figure SA-09.26 Impact of totex on ED2 Bill – WPD Total

2.78. The following charts demonstrate how we have adjusted the published 2022/23 average domestic network charge for WPD, to put it onto a comparable basis for comparing against the proposed average RIIO-ED2 bill. The largest adjustments include removing the K-Factor, which reflects any over/under recovery over the price control at the end of RIIO-ED1, and removal of the impact of the RIIO-ED1 earned incentive revenue as this will not be the same for RIIO-ED2.

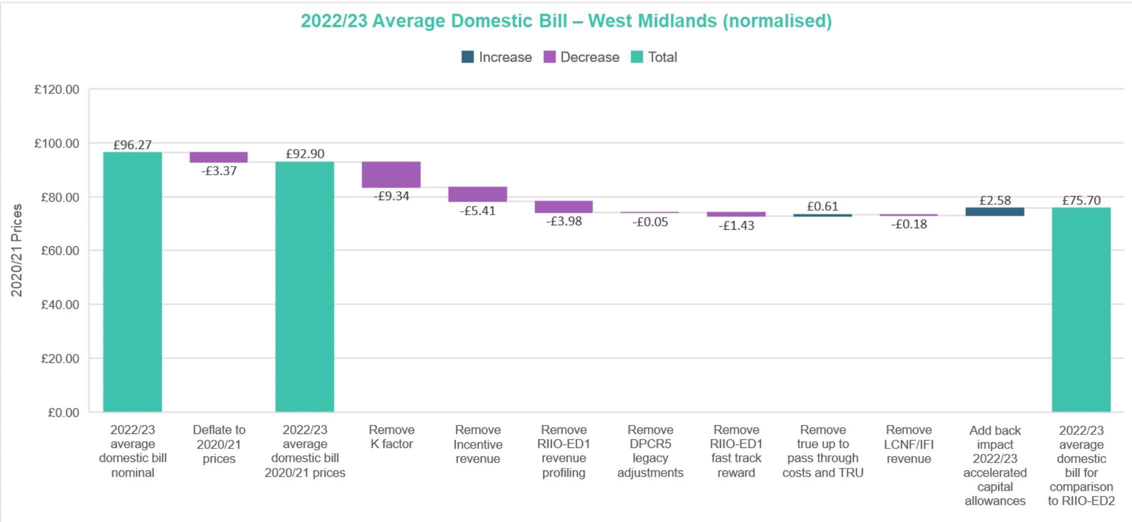


Figure SA-09.27 2022/23 Average Domestic Bill (normalised) – West Midlands

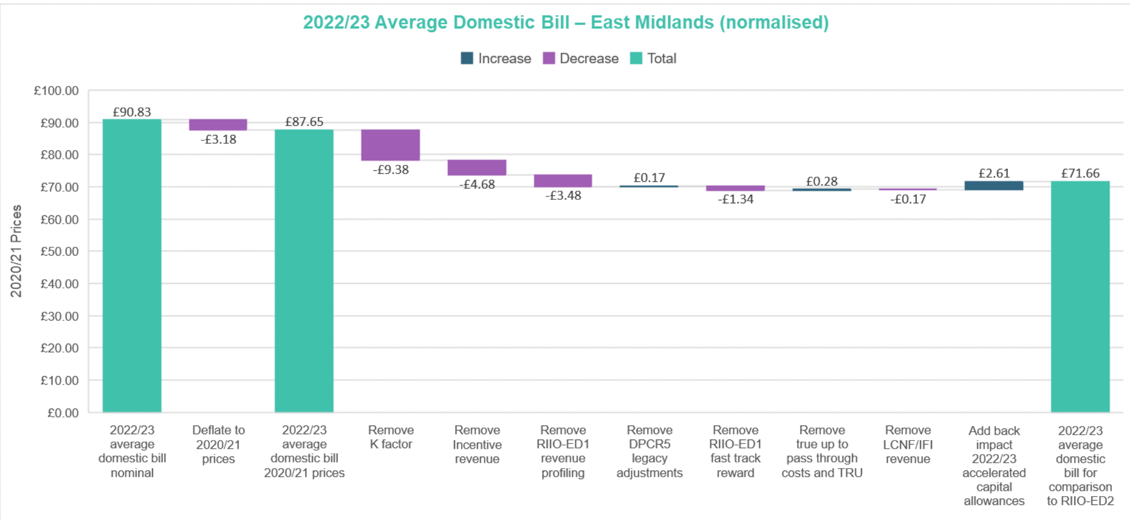


Figure SA-09.28 2022/23 Average Domestic Bill (normalised) – East Midlands

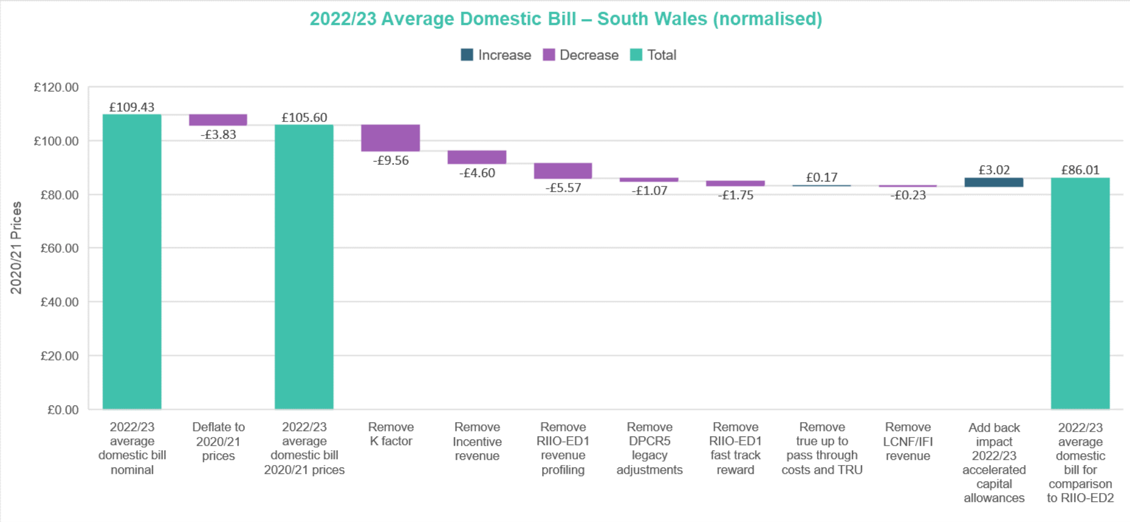


Figure SA-09.29 2022/23 Average Domestic Bill (normalised) – South Wales

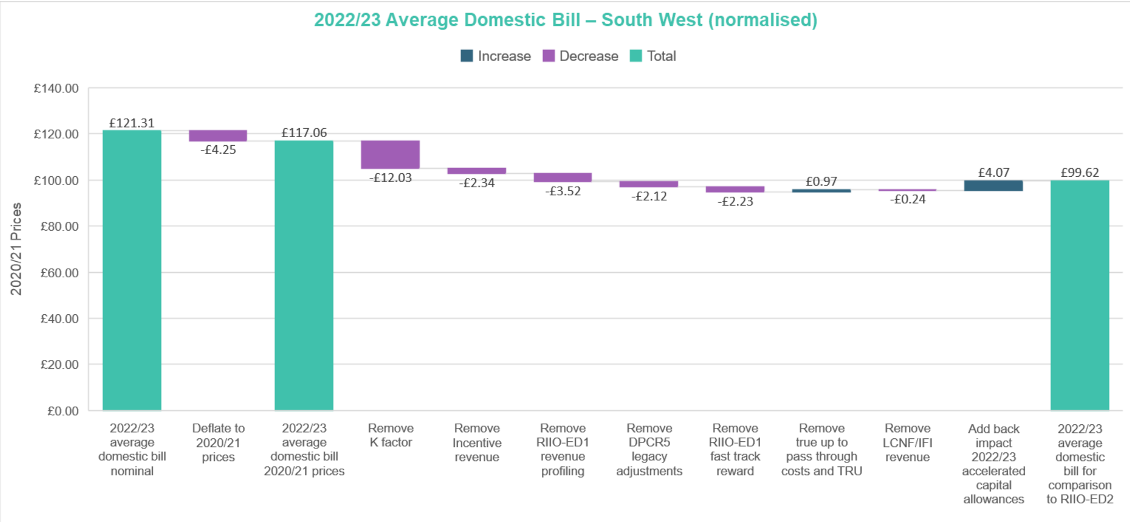


Figure SA-09.30 2022/23 Average Domestic Bill (normalised) – South West

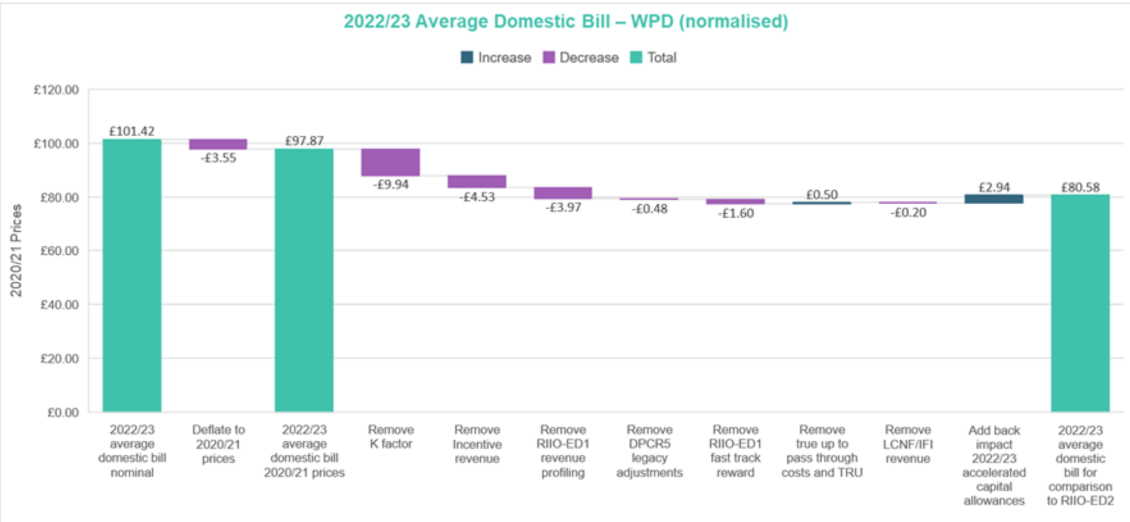


Figure SA-09.31 2022/23 Average Domestic Bill (normalised) – WPD Total

2.79. Figure SA-09.36 below, subsequently demonstrates the impact of our proposed RIIO-ED2 policies on the WPD average domestic customer bill for RIIO-ED2.

2.80. Decisions already taken by Government and Ofgem on inflation and taxation policy, including the move from RPI to CPIH and the recently announced changes to the corporation tax are shown as increases to the £80.58 average annual bill at the end of RIIO-ED1, leading to the adjusted end of RIIO-ED1 bill being £91.45 for comparative purposes.

2.81. The right hand side of the chart presents the impact of our proposals, which we are consulting on as part of our business plan, and how these subsequently affect the average WPD domestic customer's bill for RIIO-ED2.

2.82. As can be seen from the chart our proposals under WPD's base view - reflecting lower reinforcement for EV's in our network, would result in WPD's average domestic customer's annual bill falling from £91.45 at the end of RIIO-ED1 to an average of £90.50 in RIIO-ED2, a 95 pence (1%) reduction in real terms.

2.83. However, our stakeholder approved plan supports WPD's best view which sees an additional £473m of reinforcement expenditure during RIIO-ED2 to facilitate the delivery of Local authority requirements for heating and electric vehicles in which we have significant confidence. Including the overall impact of this additional investment would see our WPD average annual domestic customer bill increase by an additional £2.16, resulting in an overall WPD average domestic customer bill being an average of £92.66 during RIIO-ED2.

2.84. The position for each of four DNOs varies depending on their specific bill starting position at the end of ED1, and the DNO specific investment proposals. The DNO specific charts provided below, demonstrate how bills will fall in two of our DNOs in real terms under the base view scenario - West Midlands and East Midlands DNO; with two increasing - South Wales DNO will increase by 2.5% and South West by 2.4%. This reflects the increased levels of investment our stakeholders have asked us to make in these areas. The charts below also present the bill impact under our best view of investment for each DNO.

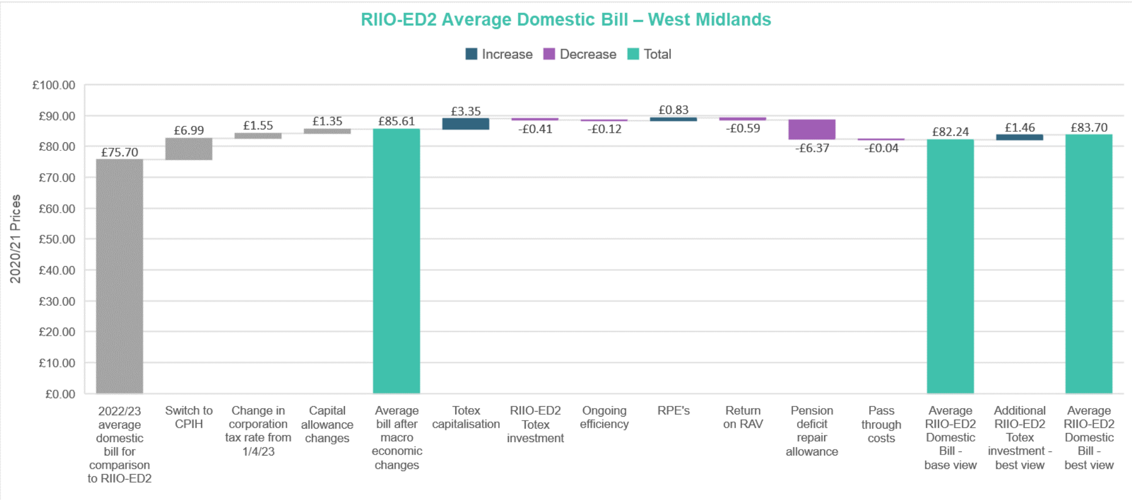


Figure SA-09.32 RIIO-ED2 Average Domestic Bill – West Midlands

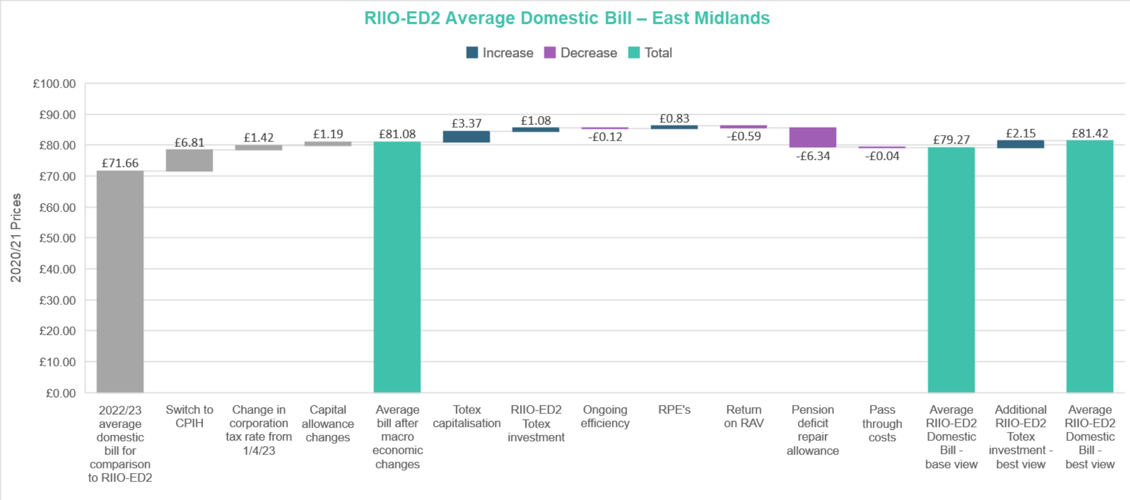


Figure SA-09.33 RIIO-ED2 Average Domestic Bill – East Midlands

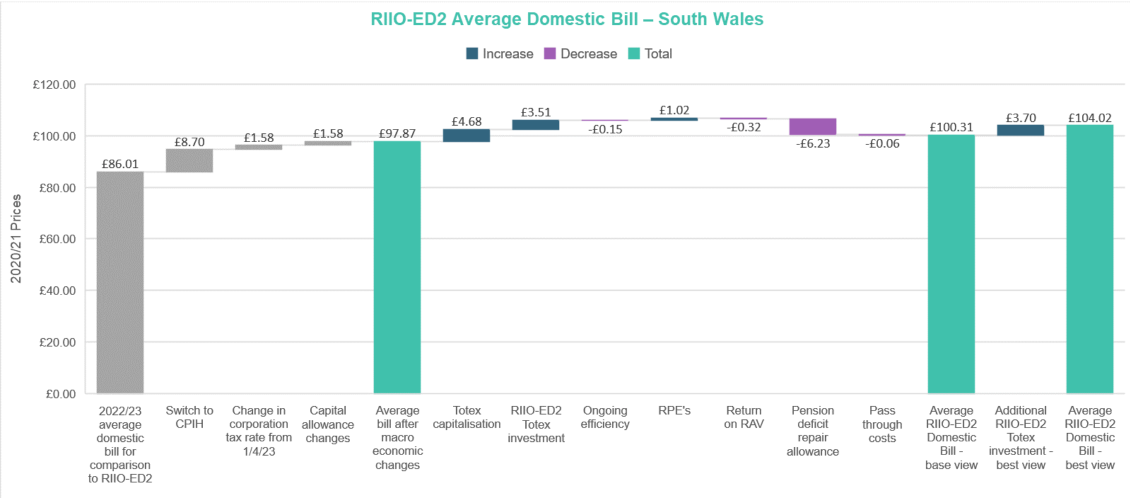


Figure SA-09.34 RIIO-ED2 Average Domestic Bill – South Wales

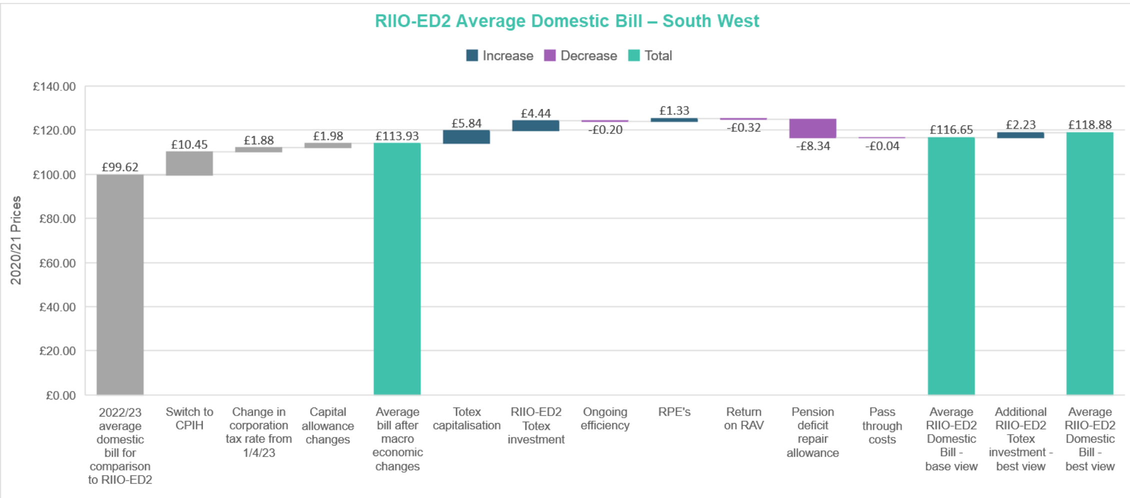


Figure SA-09.35 RIIO-ED2 Average Domestic Bill – South West

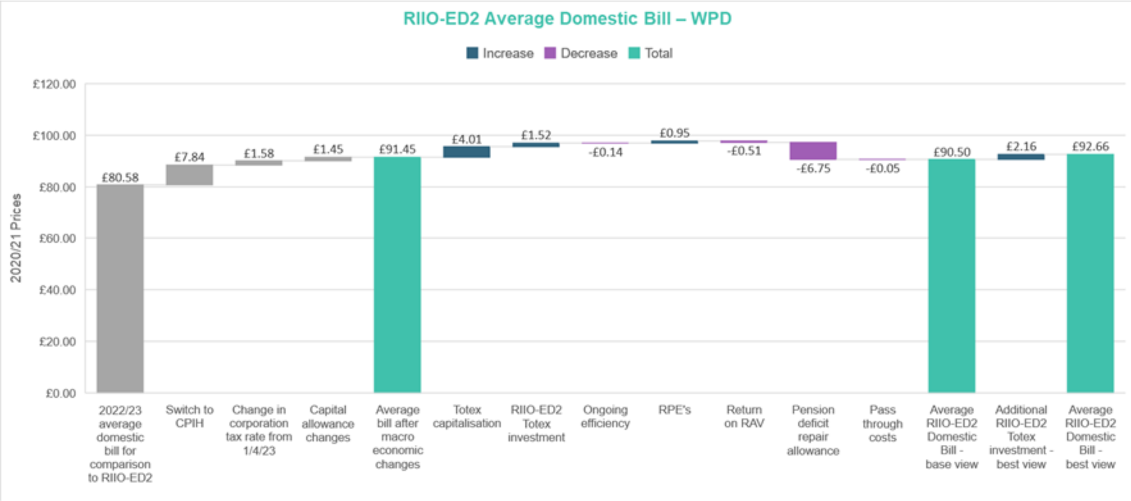


Figure SA-09.36 RIIO-ED2 Average Domestic Bill – WPD Total

Other policy areas: Related party arrangements, tax business rates and pensions

2.85. We set out below our current thinking on these policy areas.

Related party costs

2.86. Our four DNOs are part of the same corporate Group. For efficiency reasons, the DNOs operate as an integrated distribution business, with most corporate functions centralised, primarily in Western Power Distribution (South West) plc (South West) . That DNO provides services to the other DNOs, the costs of which are charged to those other DNOs on an arm's length basis.

2.87. We also operate a single banking system, with South West acting as the banker for the rest of the Group. Therefore any monies received from third parties or payable to third parties in the normal course of business use the South West bank accounts. Any monies outstanding to or from South West are recognised within the ledger of the respective company and interest is charged on a monthly basis. In line with licence requirements these 'trading balances' are reviewed and/or repaid from time to time. If money is to be loaned to another, non DNO, group company, it has to first meet the regulatory requirements as a permitted company and then the terms of the loan will be made on an arm's length basis at the prevailing market rate.

2.88. For each of the above related party cost transfers, we have robust guidelines in place that have been reviewed by legal counsel to ensure they meet legal and regulatory requirements.

Taxation

Basis of tax modelling for tax allowance

2.89. In the Spring 2021 Budget, the government announced that the corporation tax rate would increase to 25% from 1 April 2023. We will therefore use this rate in modelling the tax charge and corresponding tax allowance in the Business Plan for the RIIO-ED2 period.

2.90. Tax for price control purposes is on a cash basis so deferred tax is ignored.

2.91. The calculated notional tax charge will then be uplifted to account for the tax charge on the allowance received. The uplifted amount is the tax allowance.

Capital allowance pools

2.92. In the RIIO-ED1 Final Proposals, Ofgem stated that it would roll forward regulatory tax pool calculations at the end of the RIIO-1 period[23]. We agree that this is the correct approach; any change to opening RIIO-ED2 capital allowance pools would otherwise require an adjustment for the difference from closing RIIO-ED1 pools. We accept that capital allowance pools in the notional tax allowance calculations may have diverged from companies' actual pool balances. However, this divergence is only a temporary timing difference. We have therefore assumed that WPD's RIIO-ED2 opening tax pool balances will be the forecast RIIO-ED1 closing pool balances as calculated in the RIIO-ED1 Price Control Financial Model.

2.93. Total RIIO-ED2 forecast expenditure has then been allocated to the various tax pools using percentage allocations for each DNO, calculated on the basis of the pattern of spend for each individual DNO, as was the case in RIIO-ED1.

2.94. Capital allowances will be calculated based on the rates for the RIIO-ED2 period set out in the Spring 2021 Budget where applicable, or otherwise according to current legislation. Note that there is currently a mismatch between the asset life used in the calculation of the writing down allowance for the deferred revenue expenditure (DRE) tax pool for corporation tax purposes and the asset life used by Ofgem in RIIO-ED1 to calculate tax allowance revenue; for actual corporation tax purposes, writing down allowances for the DRE tax pool are calculated using an asset life of 69 years, whereas Ofgem uses 45 years to calculate DRE writing down allowances in the calculation of the tax allowance. WPD's Business Plan has assumed that the asset life is the same (69 years) for the calculation of DRE writing down allowances for both actual tax expense and tax allowance in RIIO-ED2; we do not consider there to be any reason to assume otherwise.

2.95. One significant development in the Spring 2021 Budget was the announcements that there will be temporary capital allowance increases applying to regulatory years 2021/22 and 2022/23. Our initial assessment has shown that the impact of the above changes across all four of our licensees is a significant reduction in our tax allowance in 2021/22 and 2022/23. We have included a provisional estimate of the impact of the increased allowances in our latest RIIO-ED1 forecast and the consequent reduction on opening RIIO-ED2 tax pools has also been included in our modelling. This impact is shown in our Bill impact charts above.

2.96. We set out below our projections for the taxation allowance that is included in this RIIO-ED2 Business Plan, under our Best Case scenario*:

Tax allowance					
£m, 2020/21 prices	**WMID**	**EMID**	**SWALES**	**SWEST**	**WPD total**
RIIO-ED1 annual average	15	13	7	9	45
RIIO-ED2 annual average	38	37	17	25	117
RIIO-ED2 total (5 years)	**192**	**183**	**83**	**127**	**586**

*Totals may not match the breakdown of individual licensees shown due to rounding to the nearest £ million

Figure SA-09.37 Taxation allowance

[23] Table A9.1, p.101. Ofgem, RIIO-ED1: Final determinations for the slow-track electricity distribution companies, 28 November 2014.

Business rates

2.97. Business Rates are a tax on the occupation of property. They are based on the rental value of the property set by the Valuation Office, an executive agency of the Inland Revenue. Rates are calculated as rateable value multiplied by the uniform business rate, which is set by Central Government.

2.98. The next revaluation to set rateable values is scheduled to take effect in England and Wales on 1 April 2023. Forecast RIIO-ED2 business rates in this version of the RIIO-ED2 Business Plan are based on the current rateable value, increased in line with inflation. Further details of these costs will be provided in the July 2021 publication of WPD's Business Plan.

2.99. We set out below our projections for Business Rates costs that are included in this RIIO-ED2 Business Plan*:

Business Rates funded through DuOS					
£m, 2020/21 prices	**WMID**	**EMID**	**SWALES**	**SWEST**	**WPD total**
RIIO-ED1 annual average	31	36	15	19	101
RIIO-ED2 annual average	31	29	14	20	93
RIIO-ED2 total (5 years)	**153**	**146**	**69**	**98**	**465**

*Totals may not match the breakdown of individual licensees shown due to rounding to the nearest £ million

Figure SA-09.38 Business rates funded through DuOS

Pensions

2.100. Ongoing pensions' costs and incremental deficit repair payments are included in the various categories of costs in elsewhere in this plan. The remaining pension deficit repair costs are subject to a separate allowance.

Background

2.101. There are two types of pension scheme:

- Final Salary Schemes that provide a pension to employees based on their salary at the time they retire (or leave employment if that is earlier) and their years of service;
- Defined Contribution Schemes that provide a pension that depends on how much was paid into the scheme by the employee and employer.

2.102. Final salary schemes need to be funded on the basis of estimates of the value of investments held by the scheme (the assets) and the projected pension costs (the liabilities). Both the assets and liabilities vary over time and full valuations are carried out every three years. If the assets are worth more than the estimate of the liabilities, there is a surplus. If the assets are worth less than the liabilities, there is a deficit.

2.103. When there is a deficit, companies have a legal obligation to pay in enough money over time to ensure that the deficit is eliminated. The period over which the deficit is eliminated is the deficit recovery period. By their nature, defined contribution schemes can have neither a surplus nor a deficit.

2.104. Pensions' matters are overseen by the Pensions Regulator who ensures that companies meet their obligations to the pension schemes under both the pension scheme trust deeds and the Pensions Act.

WPD pension schemes

2.105. We operate two main final salary schemes, the WPD Electricity Supply Pension Scheme (WPD ESPS) for employees and former employees of South West and South Wales; and the CN Electricity Supply Pension Scheme (CN ESPS) for employees and former employees of East Midlands and West Midlands. Both of these final salary schemes are closed to new members.

2.106. We also operate a defined contribution (DC) scheme, the Western Power Pension Scheme (WPPS), for employees that joined WPD after the final salary schemes were closed to new members.

2.107. Ofgem has undertaken to give companies an allowance to pay the regulated 'distribution' portion of the WPD ESPS and the CN ESPS deficits as at 31 March 2010. This is known as the Established Deficit. No specific allowance is available for any deficit that is created after 31 March 2010 although the costs of any such incremental deficit relating to regulated activities will be allowed as part of overall employment costs within Totex. However, because of investment market changes, and changes in estimates of how long pensions are due to be paid, the March 2010 deficit is revalued from time to time.

2.108. As set out by Ofgem in the SSMD Finance Annex, the allowances for companies' Established Deficits are updated through a triennial review. The last review was completed in November 2020 and the next triennial review will be in November 2023. Ofgem has stated that this review sits outside the RIIO-ED2 price control review.[24]

2.109. We set out below a breakdown of pensions costs included in our RIIO-ED2 Business Plan*:

Ongoing pension costs expenditure, including incremental deficit repair costs					
(£m, 2021/21 prices)	**WMID**	**EMID**	**SWALES**	**SWEST**	**WPD total**
RIIO-ED1 annual average	14	14	10	16	53
RIIO-ED2 annual average	18	17	13	21	69
RIIO-ED2 total (5 years)	**91**	**84**	**65**	**103**	**343**

*Totals may not match the breakdown of individual licensees shown due to rounding to the nearest £ million

Figure SA-09.39 Ongoing pension costs expenditure

Established pension deficit repair costs funded through DuOS					
(£m, 2021/21 prices)	**WMID**	**EMID**	**SWALES**	**SWEST**	**WPD total**
RIIO-ED1 annual average	40	40	27	42	148
RIIO-ED2 annual average	6	6	2	4	18
RIIO-ED2 total (5 years)	**28**	**30**	**11**	**20**	**89**

*Totals may not match the breakdown of individual licensees shown due to rounding to the nearest £ million

Figure SA-09.40 Established pension deficit repair costs funded through DuOS

[24] Paragraph 8.51, p.70, RIIO-ED2 Sector Specific Methodology Decision: Annex 3 Finance, Ofgem, 11 March 2021..

Stakeholder feedback

2.110. As part of the process of assessing the financeability of our plan we have consulted our core banking group and some of our key investors. The questionnaires sent to both groups and a summary of their responses, set out on an anonymous basis, can be found in Appendix A07.

2.111. Figures SA-09.41 and SA-09.42 below summarise the survey responses from Bank and Bond investors when asked about their institution's view of the three largest risks facing the UK Electricity Distribution sector:

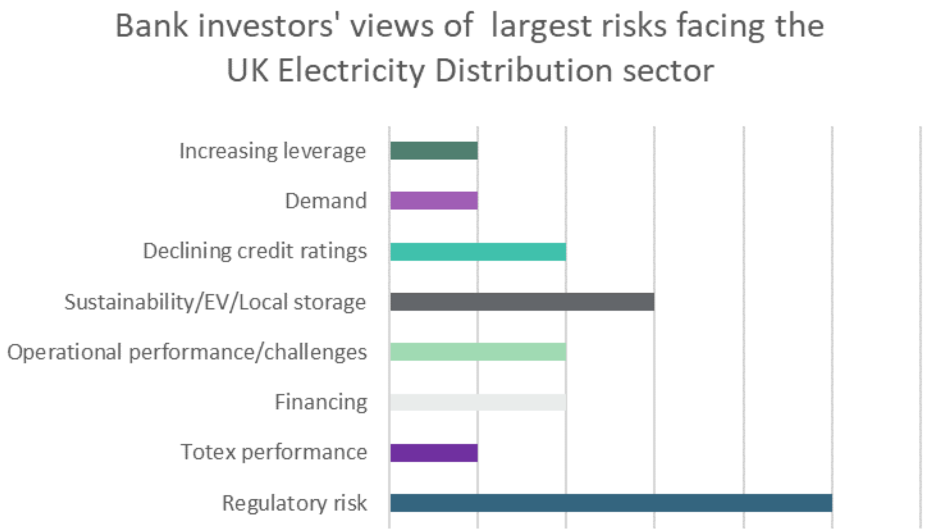


Figure SA-09.41 Bank investors' view of risks

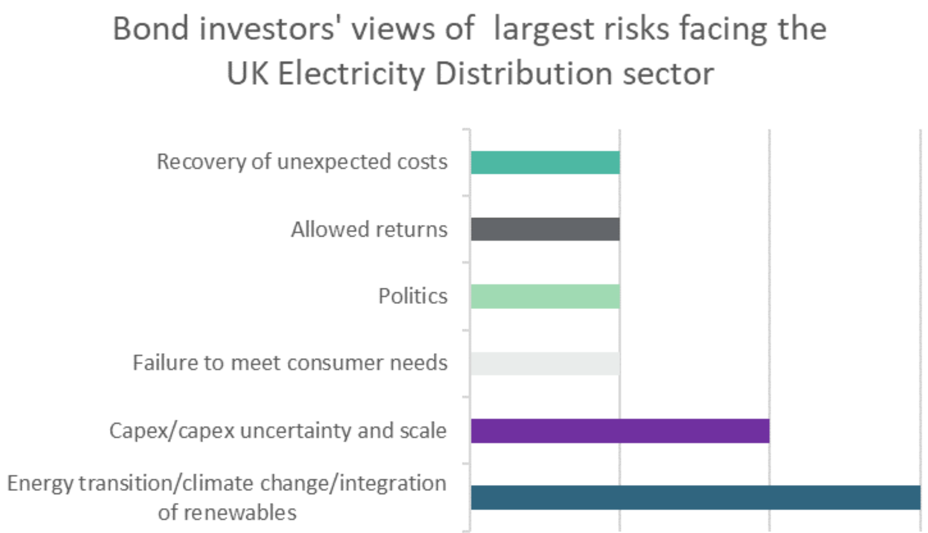


Figure SA-09.42 Bond investors' view of risks

2.112. It is clear from the feedback received that Bank investors are concerned about Regulatory risk, and the stakeholder feedback underlines the importance of the regulator's track record and the predictability of the regulator's methodology.

2.113. Bond investors recognise the critical importance of delivering Net Zero, and the risks and challenges associated with this transition, which are reflected in our proposals.

2.114. As can be seen from the results of the questionnaires, investors expect RIIO-ED2 will clearly facilitate the DNOs to deliver their work to support the Government's net zero legislated requirements. Investors are expecting RIIO-ED2 to provide the required investment in a timely way to DNOs in ED2 to facilitate a range of future scenarios. In the ED2 SSMD, Ofgem recognised the additional uncertainty faced by electricity distribution in delivering net zero and set out that Ofgem "will set allowances for investment in the networks, but we must do so in a way that enables spending plans to flex so that any pathway to Net Zero can be supported"[25].

2.115. Without such arrangements Electricity Distribution would be seen as higher risk than the other sectors in light of the need for the significant increase in investment required for ED2.

2.116. Figure SA-09.43 below summarises the survey responses from Bank investors when asked to rank their institution's view of the following risk factors largest risks facing the UK Electricity Distribution sector going forward:

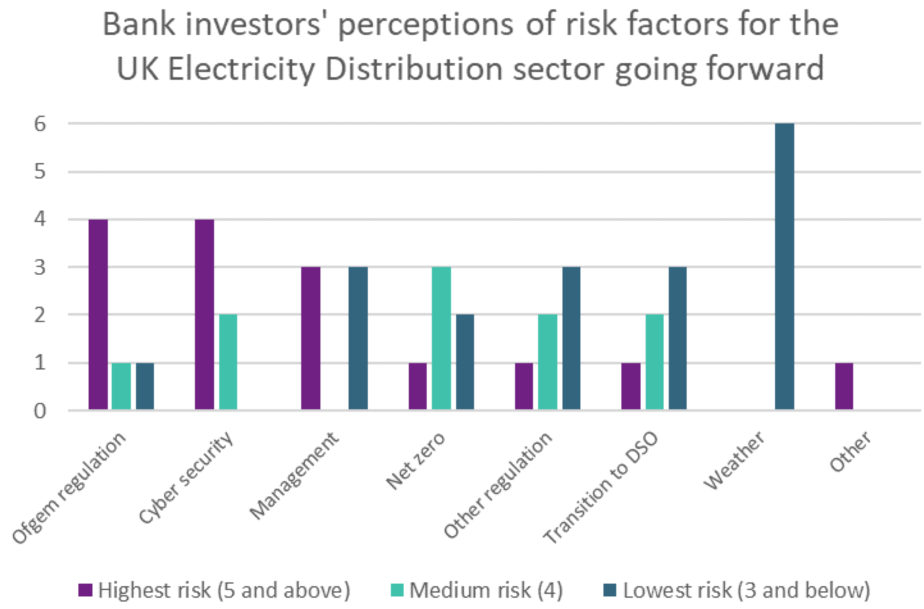


Figure SA-09.43 Bank investors' rating of risk factors

[25] p.5, RIIO-ED2 Methodology Decision: Overview, Ofgem, 17 December 2020.

Board assurance regarding the proposed financial package for RIIO-ED2

2.118. We have provided above and in our appendices a detailed assessment of the financial package prescribed by Ofgem in the published Business Plan Guidance document and the SSMD Finance Annex.

2.119. We have also set out a detailed assessment of WPD's proposed alternative financial package.

2.120. Given the critical importance of delivering Net Zero, and the level of investment our stakeholders have approved over the RIIO-ED2 period to facilitate this, our view is that Ofgem's working assumptions do not reflect the reality of the returns our investors require. Further, we do not consider that Ofgem's cost of capital appropriately reflects the balance between the significant risks of underinvestment compared to the marginal impact of setting the cost of capital too high; it is this balance that has led regulators to "aim up" historically, whereas Ofgem's approach to setting the cost of equity and its outperformance adjustment has the opposite effect.

2.121. Whilst we acknowledge that the financial ratios generated using Ofgem's BPFM under its own current working assumptions may not indicate a credit downgrade under all scenarios, it is clear that there are significant shortcomings in Ofgem's credit ratio modelling and the model's interpretation of the relationship between ratios and credit rating. It is also clear that there are wider considerations in any financeability assessment.

2.122. It is important that our licensees are not simply financeable, but have a robust enough financial position to withstand unforeseen shocks. One important consideration is the level of expenditure in this Business Plan that is subject to uncertainty mechanisms, which carries increased risk for our licensees and has not been considered in any of Ofgem's "Base case" scenarios.

2.123. It should also be recognised that, in setting the RIIO-ED1 framework, there was a reasonable prospect of achieving additional returns for investors through outperformance against price control incentive mechanisms. Ofgem's current limited proposals for the RIIO-ED2 incentive package do not present a range of opportunities linked to customer deliverables and is largely focussed on downside adjustments to returns.

2.124. In light of the above, we do not consider that Ofgem's working assumptions are acceptable and therefore cannot provide assurance that our licensees are financeable under these assumptions.

2.125. The Board is satisfied that, using our internal modelling, our licensees are financeable on both a notional and actual capital structure basis under WPD's proposed alternative financing proposals.

3. Appendices

Appendix A01 – Credit ratios under different scenarios

3.1. This appendix discusses the credit ratios generated by Ofgem's financial model (BPFM) under the following scenarios required by Ofgem. NERA's deterministic analysis (below) provides further details of outcomes under all of Ofgem's and WPD's scenarios.

3.2. The appendix can be found on our website at: https://yourpowerfuture.westernpower.co.uk/downloads-view/40878

Appendix A02 – NERA report on Additional costs of borrowing and Small Company Premium at RIIO-ED2

3.3. This report was prepared in June 2021 by NERA for the Energy Networks Association (ENA). It provides evidence that additional costs of borrowing are in the range of 38-48bps, compared to Ofgem's 25 bps assumption, with an additional 6 bps required to reflect the small company premia licensees face.

3.4. The report can be found on our website at: https://yourpowerfuture.westernpower.co.uk/downloads-view/40881

Appendix A03 – Frontier Economics report on WPD Cost of equity

3.5. In May 2021, WPD commissioned Frontier economics to provide an estimate for the range of our cost of equity over RIIO ED2, which has been considered as part of our overall cost of capital estimate.

3.6. The report can be found on our website at: https://yourpowerfuture.westernpower.co.uk/downloads-view/40884

Appendix A04 – Oxera report on the cost of equity for RIIO-ED2

3.7. The ENA commissioned Oxera to prepare a report on the cost of equity which also provides an estimate for the range of cost of equity over RIIO ED2. This has has also been considered as part of our overall cost of capital estimate.

3.8. The report can be found on our website at: https://yourpowerfuture.westernpower.co.uk/downloads-view/41070

Appendix A05 – NERA deterministic analysis for WPD

3.9. We asked NERA to review WPD's financeability and perform deterministic analysis using Ofgem's BPFM. The full results of the financeability assessment using WPD's parameters and Ofgem scenarios are included in NERA's report.

3.10. The report can be found on our website at: https://yourpowerfuture.westernpower.co.uk/downloads-view/40887

Appendix A06 – NERA stochastic analysis for WPD

3.11. We asked NERA to to perform stochastic analysis to assess the impact of a range of different scenarios on the credit rating of WPD's licensees. The full outcome of NERA's stochastic analysis using WPD's parameters and Ofgem scenarios is included in NERA's report.

3.12. The report can be found on our website at: https://yourpowerfuture.westernpower.co.uk/downloads-view/40890

Appendix A07 – WPD stakeholder engagement

3.13. As part of the process of assessing the financeability of our plan we have consulted our core banking group and also some of our key investors. The questionnaires sent to both groups and a summary of their responses, set out on an anonymous basis, can be found in this Appendix.

3.14. The report can be found on our website at: https://yourpowerfuture.westernpower.co.uk/downloads-view/40893

WESTERN POWER DISTRIBUTION

Serving the Midlands, South West and Wales

Western Power Distribution (East Midlands) plc, No2366923
Western Power Distribution (West Midlands) plc, No3600574
Western Power Distribution (South West) plc, No2366894
Western Power Distribution (South Wales) plc, No2366985

Registered in England and Wales
Registered Office: Avonbank, Feeder Road, Bristol BS2 0TB

www.westernpower.co.uk

@wpduk