



# Business Plan 2023 - 2028

SA-09 Supplementary Annex  
Financing our plan



# SA-09 Financing our plan

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# 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 1<sup>st</sup> April 2023 to 31<sup>st</sup> March 2028.
- 1.2. Western Power Distribution (WPD) is required to submit a 200 page 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. Everything in our Business Plan submission is driven to achieve the following four strategic outcomes for customers:

 <p><b>1. Sustainability</b> Lead the drive to net zero as early as possible.</p>	 <p><b>2. Connectivity</b> Customers can easily connect their electric vehicles, heat pumps and renewable generation.</p>
 <p><b>3. Vulnerability</b> First class vulnerable customer support programme where everyone benefits in a smart future.</p>	 <p><b>4. Affordability</b> Maintain excellent customer service, safety and network performance and transform the energy grid for future generations, while keeping bills broadly flat.</p>

- 1.5. 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.

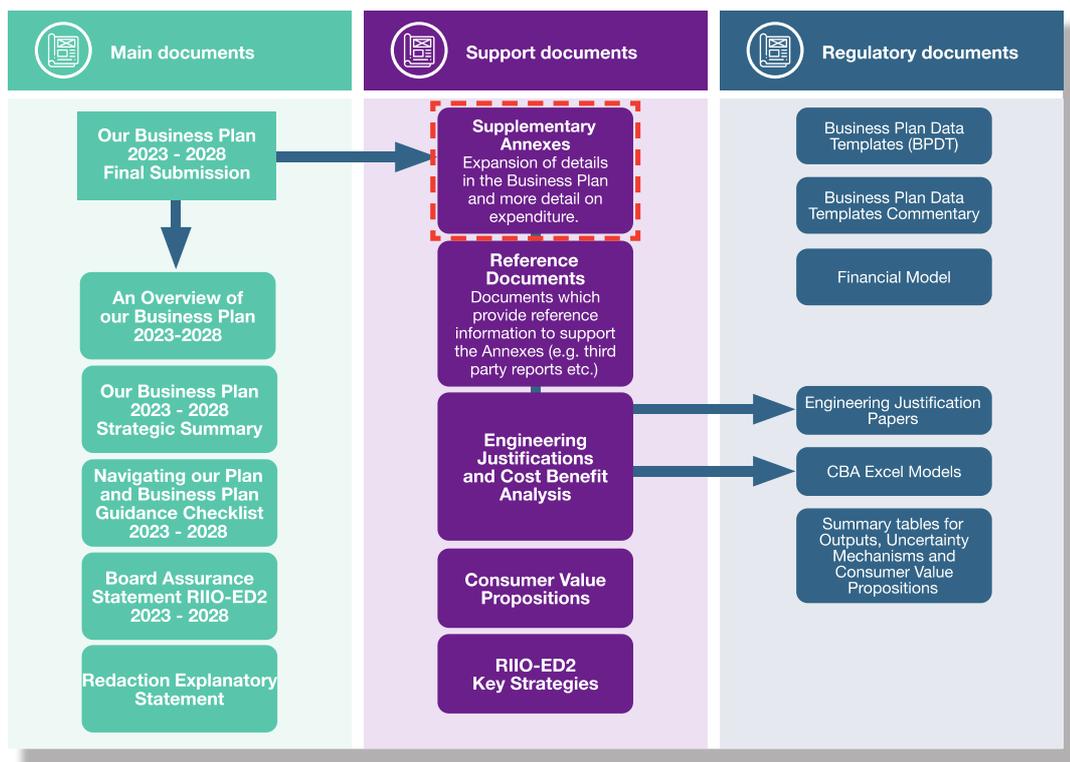


Figure SA-09.0 Business Plan submission structure

- 1.6. This document is a Supplementary Annex to Chapter 9 of WPD’s RIIO-ED2 Business Plan document. Annex 9: Financing our plan 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.
- 1.7. 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 financial elements of our plan.
- 1.9. This document is subdivided into the following sections:

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

## 2. Financing our plan

### Summary

- 2.1. Our Business Plan is the culmination of our work with stakeholders to build a plan that ensures excellent customer service, drives industry leading sustainability plans and prioritises digitalisation and innovation – all while supporting our most vulnerable customers, tackling fuel poverty and ensuring bills remain affordable for everyone.
- 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 are largely focused 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 (Revenue = Incentives + Innovation + Outputs) price control, driving up the outputs for consumers, and are a fundamental part of the associated financial package, and a key element for financeability.
- 2.3. As set out in this Finance Annex and appendices, and Chapter 9 of our Business Plan, we have assessed whether our licensees are financeable on both a notional and actual capital structure basis, using the Ofgem working assumptions. We have identified that the outcome of the financeability metrics is significantly below WPD’s stated ratio target and that there is a substantial downside risk on credit ratings, including the risk of sub-investment grade rating, for all of the WPD DNOs.
- 2.4. To address the financeability issues under Ofgem’s working assumptions, we have evaluated whether it is appropriate to adjust capitalisation rates, asset lives, dividends and gearing, or to refinance debt; the measures identified by Ofgem to resolve financeability issues. Our conclusion is that these measures do not provide adequate resolution to the financeability issues alone and a small uplift to the cost of equity and cost of debt is also required. We therefore set out an alternative financing package which reflects these adjustments to ensure we are financeable. Full details of the outcome of our assessment of the Ofgem base case and our alternative financing package are set out in Appendices A01 and A02 to this Finance Annex.
- 2.5. This updated proposal has considered the latest findings of the Competition & Markets Authority (CMA) in the recent RIIO-2 appeals by gas distribution and transmission companies and includes the minimum realistic return required to deliver the transformational plan for stakeholders in RIIO-ED2. Our proposal reflects the additional risks for electricity distribution in effectively delivering net zero. We have stress-tested our proposals to ensure that we can remain resilient under a range of credible scenarios (see Appendix A03; RIIO-ED2 Financeability Assessment: Stochastic Risk Modelling, prepared for WPD, a report by NERA). However, as NERA highlights in its report, while our alternative financing assumptions somewhat mitigate downside risk on rating compared to the Ofgem assumptions, they do not eliminate this risk fully, resulting in sub-investment grade ratings in a number of years under some scenarios. RIIO-ED2 must remain attractive to investors, who are key to enabling us to deliver the net zero agenda, but have a range of alternative opportunities across the world in which they can invest.
- 2.6. Our proposed RIIO-ED2 financing package will provide the funding to deliver our commitments along with the returns required to compensate investors for risks associated with delivering the agreed commitments over the next five years.
- 2.7. Our RIIO-ED2 Business Plan, developed with our stakeholders, balances the need to attract the investment required to deliver a smart, digitalised electricity network by 2028 and drive the shift towards a low carbon, net zero future for our customers, while keeping customer bills broadly flat compared to RIIO-ED1 levels.
- 2.8. The content of this chapter 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 and third Business Plans, published on 24 March 2021 and 1 July 2021 respectively.

## Financial projections

- 2.9. The preceding chapters have set out in detail our RIIO-ED2 expenditure plans to deliver the outputs and outcomes that have been co-developed with our stakeholders. The following tables set out our detailed projections of how WPD's baseline investment proposals translate into the revenues we will need to recover from our customers to fund this expenditure, under our proposed financing package.
- 2.10. We have used WPD's baseline of expenditure to determine our forecast revenues as this is the most likely outcome during RIIO-ED2. Our proposed reinforcement volume driver will adjust Totex and hence associated revenue in line with actual outturn reinforcement expenditure, which is designed to provide a timely response to stakeholder developments, including local authority plans and needs. Note that the values in the following tables do not include the potential impact of Ofgem's Access Significant Code Review (Access SCR), given the current level of uncertainty, range of potential outcomes and hence the size of its potential impact. Our provisional estimate is that the Access SCR could result in an increase of between £174 million and £606 million (2020/21 prices) in RIIO-ED2 Totex, resulting in potential bill impacts of between £1 (low case) and £3 (high case) on the average RIIO-ED2 domestic bill; our best estimate is an increase of approximately £1.50 in the average RIIO-ED2 domestic bill for WPD's customers.
- 2.11. The following tables present the required revenue by DNO to deliver WPD's RIIO-ED2 baseline plan. Note that in the tables presented in this chapter, totals shown may not quite match the sum of individual rows or columns due to rounding to the nearest million.

WPD Financial Projections for RIIO-ED2 - Revenue requirement (£million in 2020/21 prices)						
West Midlands	2023/24	2024/25	2025/26	2026/27	2027/28	Total
Fast pot costs	93	94	96	88	95	466
Depreciation on slow pot costs (RAV)	196	194	194	190	186	959
Pension deficit repair payments	0	0	0	0	0	0
Rates, licence fees and smart metering	35	35	35	35	35	175
Transmission exit charges	9	9	9	9	9	46
Financing costs	95	96	96	95	94	475
Equity issuance allowance	7	0	0	0	0	7
Taxation allowance	42	37	35	30	29	173
<b>Total</b>	<b>477</b>	<b>465</b>	<b>464</b>	<b>447</b>	<b>448</b>	<b>2,301</b>

Figure SA-09.1 RIIO-ED2 Revenue requirements – West Midlands

WPD Financial Projections for RIIO-ED2 - Revenue requirement (£million in 2020/21 prices)						
East Midlands	2023/24	2024/25	2025/26	2026/27	2027/28	Total
Fast pot costs	99	98	101	99	93	490
Depreciation on slow pot costs (RAV)	192	192	193	191	189	958
Pension deficit repair payments	0	0	0	0	0	0
Rates, licence fees and smart metering	34	34	34	34	34	169
Transmission exit charges	9	9	9	9	9	44
Financing costs	96	97	97	97	97	484
Equity issuance allowance	7	0	0	0	9	15
Taxation allowance	40	35	33	29	31	169
<b>Total</b>	<b>477</b>	<b>465</b>	<b>467</b>	<b>459</b>	<b>461</b>	<b>2,329</b>

Figure SA-09.2 RIIO-ED2 Revenue requirements – East Midlands

WPD Financial Projections for RIIO-ED2 - Revenue requirement (£million in 2020/21 prices)						
South Wales	2023/24	2024/25	2025/26	2026/27	2027/28	Total
Fast pot costs	55	54	60	55	55	279
Depreciation on slow pot costs (RAV)	89	89	88	89	88	443
Pension deficit repair payments	0	0	0	0	0	0
Rates, licence fees and smart metering	16	16	16	16	16	79
Transmission exit charges	7	7	7	7	7	35
Financing costs	46	47	48	49	50	241
Equity issuance allowance	3	0	0	5	0	8
Taxation allowance	18	14	14	14	11	72
<b>Total</b>	<b>233</b>	<b>227</b>	<b>234</b>	<b>236</b>	<b>227</b>	<b>1,157</b>

Figure SA-09.3 RIIO-ED2 Revenue requirements – South Wales

WPD Financial Projections for RIIO-ED2 - Revenue requirement (£million in 2020/21 prices)						
South West	2023/24	2024/25	2025/26	2026/27	2027/28	Total
Fast pot costs	85	85	93	87	85	434
Depreciation on slow pot costs (RAV)	131	132	131	132	132	658
Pension deficit repair payments	0	0	0	0	0	0
Rates, licence fees and smart metering	23	23	23	23	23	114
Transmission exit charges	6	6	7	7	7	33
Financing costs	70	73	75	77	78	373
Equity issuance allowance	5	0	0	8	0	13
Taxation allowance	27	23	22	23	18	112
<b>Total</b>	<b>347</b>	<b>341</b>	<b>351</b>	<b>356</b>	<b>342</b>	<b>1,737</b>

Figure SA-09.4 RIIO-ED2 Revenue requirements – South West

WPD Financial Projections for RIIO-ED2 - Revenue requirement (£million in 2020/21 prices)						
WPD Total	2023/24	2024/25	2025/26	2026/27	2027/28	Total
Fast pot costs	332	331	349	330	328	1,670
Depreciation on slow pot costs (RAV)	608	607	606	602	595	3,017
Pension deficit repair payments	0	0	0	0	0	0
Rates, licence fees and smart metering	107	107	108	107	107	537
Transmission exit charges	31	31	32	32	32	158
Financing costs	307	312	317	319	319	1,573
Equity issuance allowance	21	0	0	13	9	43
Taxation allowance	128	109	104	97	89	526
<b>Total</b>	<b>1,534</b>	<b>1,498</b>	<b>1,516</b>	<b>1,498</b>	<b>1,478</b>	<b>7,524</b>

Figure SA-09.5 RIIO-ED2 Revenue requirements –WPD Total

## Business financing objectives

- 2.12.** Investment in electricity distribution networks is essential to not only maintain the industry leading standards of performance our current and future customers expect in terms of reliability and security of supplies, but also essential to deliver the UK's net zero commitments set out in Government legislation. Our Business Plan sets out a need for continued and significant investment in our network. Ofgem's statutory duty to ensure that an efficient company can finance its activities is key to ensuring companies are able to make this necessary future investment<sup>1</sup>.
- 2.13.** 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.
- 2.14.** RIIO-ED2 must ensure electricity distribution companies remain attractive to investors who have a range of opportunities across the world in which they can invest.

## Key financial ratios

- 2.15.** 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 Business Plan is financeable. The ratios Ofgem has stated it will look at<sup>2</sup> are:
- Gearing.
  - FFO Interest Cover (including accretions).
  - FFO Interest Cover (cash interest).
  - Adjusted Interest Cover Ratio (AICR) or PMICR<sup>3</sup>.

<sup>1</sup> "...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.

<sup>2</sup>Financeability Assessment for RIIO-2: Further Information; Ofgem slide pack, 26 March 2019, slide 6.

<sup>3</sup>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)

- Nominal PMICR<sup>4</sup>.
- FFO/Net Debt.
- RCF/Net Debt.

**2.16.** Ofgem stated its approach to assessing financeability in 2019<sup>5</sup>, 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.
- Carrying out sensitivity testing to assess the resilience of financial ratios under different scenarios.

**2.17.** We consider Ofgem’s approach to financeability and following rating agency methodologies as the minimum financeability requirements. Later in this chapter we set out further financeability considerations.

**2.18.** 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 Moody’s Investors Service or BBB (low) or higher by DBRS Rating Limited. The credit ratings presented in figures SA-09.8 to SA-09.11, SA-09.13 to SA-09.16 and SA-09.20 to SA-09.23 are those generated by Ofgem’s Business Plan Financial Model (BPFM).

**2.19.** However, the credit ratings derived from the model are only one consideration. Financeability must be considered from a wider perspective, and 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. The results of our stakeholder engagement with bond and bank investors clearly demonstrate 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

**2.20.** Ofgem stated in the RIIO-2 SSMD for Gas and Transmission companies that it would not target a particular rating, and that this was a decision for company boards<sup>6</sup>.

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

- In RIIO-ED1, Ofgem calculates the 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 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.

<sup>4</sup>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)

<sup>5</sup>Financeability Assessment for RIIO-2: Further Information; Ofgem slide pack, 26 March 2019.

<sup>6</sup>RIIO-2 Sector Specific Methodology Decision – Finance, 24 May 2019, p. 92 (para 4.27)

- 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.”<sup>7</sup>
- A rating of BBB+/Baa1 allows a level of resilience to withstand unforeseen market shocks, without the loss of investment grade status.
- In addition, in its Summary of Final Determinations for the recent water companies’ price control appeal, the 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<sup>8</sup>. Further, the CMA performed its own financeability analysis with reference to a Baa1 target in its Provisional Findings<sup>9</sup>.
- The adoption of a lower credit rating for the RIIO-ED2 financeability assessment while 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.
- It would be imprudent to target a weaker rating given the significant RIIO-ED2 investment programme and the need to attract this investment.

**2.22.** From a debt funding perspective, we target an actual company credit rating the top of the Baa1-Baa2 range as this ensures access to a wide range of debt instruments and capital markets at an efficient interest rate.

## Ofgem’s working assumptions

**2.23.** Ofgem set out its working assumptions for the RIIO-ED2 price control in the March 2021 SSMD<sup>10</sup> 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 SSMD working assumptions**

**2.24.** Ofgem’s document “Financeability Assessment for RIIO-2: Further Information”<sup>11</sup> 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.

<sup>7</sup>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](https://www.ofgem.gov.uk/system/files/docs/2021/02/final_determinations_-_finance_annex_revised_002.pdf)

<sup>8</sup>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>

<sup>9</sup>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](https://assets.publishing.service.gov.uk/media/5f7c467ee90e070dde709cee/Water_provisional_determinations_report_all_-_September_2020_-_web_-_online-2.pdf)

<sup>10</sup> 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](https://www.ofgem.gov.uk/system/files/docs/2021/03/riio_ed2_ssmd_annex_3_finance.pdf)

<sup>11</sup>Financeability Assessment for RIIO-2: Further Information; Ofgem slide pack, 26 March 2019.

- 2.25.** We note that Ofgem considers that refinancing existing debt is an option available to licensees to resolve potential financeability issues. While 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 Chapter 4, 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 where this is efficient. We regularly look at refinancing existing (more expensive) debt but this has not been an efficient option in RIIO-ED1; nor will it be in 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.
- 2.26.** Ofgem’s decision letter following the 2011 consultation on asset lives and the decision to use an average expected economic asset life of 45 years for new assets stated that the RIIO approach of using economic lives to determine the regulatory depreciation profile represents a sustainable long term policy. We want to ensure that our Business Plan is financeable without the need to make changes to asset lives, and set out further detail on this issue in paragraphs 2.73 – 2.77.

## Financial ratios used in financeability analysis

- 2.27.** 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. Moody’s 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 Moody’s when assessing DNOs. We will therefore target credit ratios at all four DNOs, in the long run, that are at the higher end of the Baa1-Baa2 range in order to provide resilience against macro downside movements. However, as demonstrated in the credit ratios under Ofgem’s and WPD’s scenarios below, this is not achieved in all circumstances. Therefore our proposal, which incorporates the latest market information, results in credit ratings at the lowest end of the required range for financeability. It is essential that an incentive package is available in RIIO-ED2 which offers opportunities for good performing companies to earn rewards and doesn’t only present further downside risk to returns.

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 Moody’s Financial ratios**

Source: Boundaries above as published in Moody’s ‘Regulated Electric and Gas Networks methodology scorecard published in March 2017’<sup>12</sup>.

Note: Moody’s states that a deterioration in the secondary ratios will not, in isolation, result in downward rating pressure

- 2.28.** Maintaining a good investment grade is important. Recent shocks in the supplier market have seen Ofgem call on licensees to provide some financial support to suppliers to prevent further supplier failure. A similar call was made during the height of the Covid pandemic. Licensees have only been able to provide some support in RIIO-ED1 due to the ratings that are currently maintained.
- 2.29.** As stated above, 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,

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

the ability to achieve additional incentive and the scale and complexity of investment programmes. We have also considered this as part of our financing considerations.

## Financial ratios calculated using Ofgem's working assumptions

**2.30.** As Ofgem requires, 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 View of RIIO-ED2 expenditure. As in RIIO-ED1, WPD will align its gearing level with Ofgem's notional gearing every year, which for RIIO-ED2 will be 60%. However, Ofgem's notional modelling approach only resets to 60% if gearing exceeds 65%. Included below are the results of modelling Ofgem's Base case scenario with notional financeability.

Financial ratios under Ofgem assumptions West Midlands	2023/24	2024/25	2025/26	2026/27	2027/28	RIIO-ED2 AVERAGE
Net debt/Regulated asset value (RAV)	60.39%	61.20%	62.05%	62.52%	63.31%	<b>61.89%</b>
Adjusted interest cover ratio (AICR)	1.37	1.37	1.38	1.39	1.41	<b>1.39</b>
FFO to Interest (including accretions)	3.86	3.82	3.80	3.78	3.76	<b>3.80</b>
FFO/Net debt	13.11%	12.40%	11.80%	11.23%	10.54%	<b>11.81%</b>
Retained cash flow (RCF)/Net debt	10.61%	9.95%	9.39%	8.83%	8.17%	<b>9.39%</b>

Figure SA-09.8 Financial ratios, Ofgem base case (notional) - West Midlands

Financial ratios under Ofgem assumptions East Midlands	2023/24	2024/25	2025/26	2026/27	2027/28	RIIO-ED2 AVERAGE
Net debt/Regulated asset value (RAV)	60.73%	61.74%	62.84%	63.73%	64.32%	<b>62.67%</b>
Adjusted interest cover ratio (AICR)	1.37	1.36	1.36	1.37	1.39	<b>1.37</b>
FFO to Interest (including accretions)	3.78	3.73	3.70	3.67	3.67	<b>3.71</b>
FFO/Net debt	12.68%	12.00%	11.33%	10.72%	10.25%	<b>11.39%</b>
Retained cash flow (RCF)/Net debt	10.19%	9.56%	8.95%	8.36%	7.91%	<b>8.99%</b>

Figure SA-09.9 Financial ratios, Ofgem base case (notional) - East Midlands

Financial ratios under Ofgem assumptions South Wales	2023/24	2024/25	2025/26	2026/27	2027/28	RIIO-ED2 AVERAGE
Net debt/Regulated asset value (RAV)	61.54%	63.15%	65.18%	61.54%	62.88%	<b>62.86%</b>
Adjusted interest cover ratio (AICR)	1.36	1.34	1.32	1.43	1.43	<b>1.38</b>
FFO to Interest (including accretions)	3.66	3.52	3.40	3.60	3.53	<b>3.54</b>
FFO/Net debt	11.94%	10.99%	9.94%	10.33%	9.61%	<b>10.56%</b>
Retained cash flow (RCF)/Net debt	9.49%	8.61%	7.64%	7.91%	7.23%	<b>8.18%</b>

Figure SA-09.10 Financial ratios, Ofgem base case (notional) – South Wales

Financial ratios under Ofgem assumptions South West	2023/24	2024/25	2025/26	2026/27	2027/28	RIIO-ED2 AVERAGE
Net debt/Regulated asset value (RAV)	61.62%	63.42%	65.51%	61.71%	63.09%	<b>63.07%</b>
Adjusted interest cover ratio (AICR)	1.38	1.36	1.34	1.44	1.44	<b>1.39</b>
FFO to Interest (including accretions)	3.58	3.44	3.31	3.51	3.43	<b>3.45</b>
FFO/Net debt	11.58%	10.61%	9.56%	9.93%	9.24%	<b>10.19%</b>
Retained cash flow (RCF)/Net debt	9.13%	8.24%	7.27%	7.52%	6.87%	<b>7.81%</b>

Figure SA-09.11 Financial ratios, Ofgem base case (notional) – South West

**2.31.** It can be seen that in this notional scenario, as modelled by Ofgem in the BPFM, gearing is allowed to increase up to 65% before an equity injection is modelled. The impact of such modelled equity issuances in South Wales and South West in 2026/27 can be seen in the ratios above, in both cases to bring gearing back down to 60% where it would otherwise exceed 65%. We note that NERA has turned off Ofgem's modelling of automatic equity injections when gearing increases 5% above notional levels, otherwise the full financeability downside is not represented.

**2.32.** The AICR above for each of the WPD DNOs, taken from Ofgem's model, is a value of 1.39 or below for each WPD licensee on average over RIIO-ED2. According to the Moody's ratios we

set out at figure SA-09.7, this would place all four WPD DNOs in the mid-range of the Baa2-Baa1 category (1.6x–1.2x).

- 2.33.** The FFO/Net debt ratio above for each of the WPD DNOs, taken from Ofgem’s model, ranges from 10.19% to 11.81% for WPD licensees on average over RIIO-ED2. Again, according to the Moody’s ratios, this would place all four WPD DNOs towards the bottom, or even below the bottom, of the range of the Baa2-Baa1 category (11% – 18%).
- 2.34.** The outcome of the financeability metrics above is significantly below WPD’s stated ratio target of the higher end of the range of the Baa values shown in the table of Moody’s ratios. We note that the majority of the ratios demonstrate deterioration over the period; this position may indicate the storing up of further financial problems for future price controls, which would have a wholly inappropriate impact on future customers. It should also be noted that AICR is one of Moody’s two primary ratios, and also that these ratios represent Ofgem’s financeability base case, i.e. ratios could deteriorate further under the stress scenarios below.

## Ofgem’s suggested set of common stress test scenarios

- 2.35.** In its Sector Specific Methodology Consultation document for Gas and Transmission companies, Ofgem stated that it expects all network companies to run the scenarios below as a minimum<sup>13</sup>. These stress tests were reiterated by Ofgem in the RIIO-ED2 SSMD.

Factor	Ofgem Proposed Level (relative to working assumption level)
<i>Macro Scenarios</i>	
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
<i>Performance Scenarios</i>	
Totex performance	±10%
Return on Regulatory Equity (RoRE)	±2% compared to base assumption
<i>Other Scenarios</i>	
Proportion of inflation linked debt	±5%*

\* 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.

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

- 2.36.** 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 RoRE is a key measure for investors and it is important that our Business Plan is both financeable and, fundamentally, attractive enough to investors to generate the necessary investment.
- 2.37.** Moody’s 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. 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

<sup>13</sup>Paragraph 4.80 and table 19, p.96, RIIO-2 Sector Specific Methodology Decision – Finance, 24 May 2019

less favourable regulatory environment as significant risks facing the UK electricity distribution sector.

- 2.38. 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 on these. Ofgem’s current, and limited, proposals for the RIIO-ED2 incentive package do not present a range of opportunities linked to customer deliverables and are largely focused on downside adjustments to returns. It is clear that, as a result of this focus on downside adjustments, the likelihood of the stress test scenarios above is not symmetrical, but that there is currently a significantly greater likelihood of the RoRE downside scenario occurring than the RoRE upside scenario.

## Additional stress tests WPD considers are needed

### Baseline scenario

- 2.39. Chapter 7 of the Business Plan sets out the level of expenditure WPD is proposing in our Baseline View of expenditure, excluding the impact of the Access SCR. Our Business Plan facilitates the Government’s net zero targets and is based on our extensive stakeholder engagement process; our Baseline View is therefore the level of expenditure that our stakeholders have told us they consider to be the most appropriate level of investment.

### Sharing factors

- 2.40. We have not received any further clarification from Ofgem in relation to sharing factors since the publication of our third Business Plan in July 2021. Our Business Plan is based on a sharing factor of 50%, which is the rate we propose Ofgem should adopt for all our expenditure. We have been transparent about our expenditure requirement, all of which has high confidence and is necessary to deliver the net zero future for our customers.

## Outcome of Ofgem stress test scenarios

- 2.41. The full results of these stress tests are set out in Appendix A01 to this Finance Annex. The most stretched financial ratios are under the Ofgem Low RoRE scenario; this scenario assumes a decrease in outperformance revenue equal to a 2% RoRE impact (i.e. a total 1.75% RoRE underperformance, taking into account Ofgem’s inclusion of 0.25% RoRE outperformance in its Base case scenario). This scenario captures a wide range of risks for WPD, as RoRE encompasses risks on cost of debt, Totex expenditure, and penalties under incentives. We present the results of the Low RoRE stress test below:

Financial ratios under Ofgem assumptions West Midlands	2023/24	2024/25	2025/26	2026/27	2027/28	RIIO-ED2 AVERAGE
Net debt/Regulated asset value (RAV)	61.18%	62.77%	64.39%	65.63%	61.62%	<b>63.12%</b>
Adjusted interest cover ratio (AICR)	1.03	1.01	0.99	0.98	1.06	<b>1.02</b>
FFO to Interest (including accretions)	3.54	3.45	3.38	3.31	3.54	<b>3.44</b>
FFO/Net debt	11.65%	10.79%	10.06%	9.37%	9.67%	<b>10.31%</b>
Retained cash flow (RCF)/Net debt	9.18%	8.39%	7.73%	7.07%	7.25%	<b>7.92%</b>

Figure SA-09.13 Financial ratios, Ofgem working assumptions, Low RoRE scenario (notional) - West Midlands

Financial ratios under Ofgem assumptions East Midlands	2023/24	2024/25	2025/26	2026/27	2027/28	RIIO-ED2 AVERAGE
Net debt/Regulated asset value (RAV)	61.52%	63.30%	65.15%	61.74%	63.15%	<b>62.97%</b>
Adjusted interest cover ratio (AICR)	1.03	1.01	0.98	1.05	1.03	<b>1.02</b>
FFO to Interest (including accretions)	3.47	3.37	3.29	3.48	3.42	<b>3.41</b>
FFO/Net debt	11.24%	10.41%	9.64%	9.94%	9.29%	<b>10.10%</b>
Retained cash flow (RCF)/Net debt	8.78%	8.03%	7.33%	7.53%	6.91%	<b>7.72%</b>

Figure SA-09.14 Financial ratios, Ofgem working assumptions, Low RoRE scenario (notional) - East Midlands

Financial ratios under Ofgem assumptions South Wales	2023/24	2024/25	2025/26	2026/27	2027/28	RIIO-ED2 AVERAGE
Net debt/Regulated asset value (RAV)	62.32%	64.69%	67.42%	62.32%	64.42%	<b>64.24%</b>
Adjusted interest cover ratio (AICR)	1.02	0.99	0.96	1.04	1.01	<b>1.00</b>
FFO to Interest (including accretions)	3.34	3.17	3.01	3.25	3.13	<b>3.18</b>
FFO/Net debt	10.55%	9.48%	8.39%	8.95%	8.13%	<b>9.10%</b>
Retained cash flow (RCF)/Net debt	8.12%	7.15%	6.15%	6.56%	5.80%	<b>6.75%</b>

**Figure SA-09.15 Financial ratios, Ofgem working assumptions, Low RoRE scenario (notional) – South Wales**

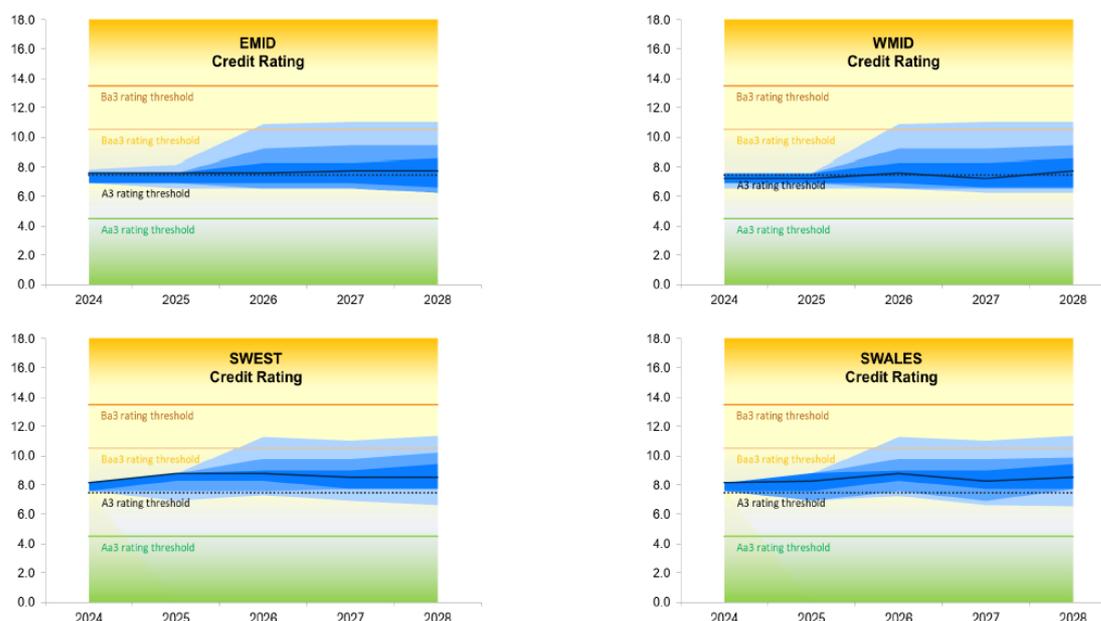
Financial ratios under Ofgem assumptions South West	2023/24	2024/25	2025/26	2026/27	2027/28	RIIO-ED2 AVERAGE
Net debt/Regulated asset value (RAV)	62.40%	64.95%	67.74%	62.49%	64.62%	<b>64.44%</b>
Adjusted interest cover ratio (AICR)	1.05	1.01	0.97	1.06	1.03	<b>1.02</b>
FFO to Interest (including accretions)	3.27	3.09	2.93	3.15	3.03	<b>3.09</b>
FFO/Net debt	10.19%	9.12%	8.03%	8.56%	7.78%	<b>8.74%</b>
Retained cash flow (RCF)/Net debt	7.77%	6.80%	5.80%	6.18%	5.45%	<b>6.40%</b>

**Figure SA-09.16 Financial ratios, Ofgem working assumptions, Low RoRE scenario (notional) – South West**

- 2.42.** It can be seen that AICR deteriorates to a range of 1.00-1.02 for WPD licensees on average over RIIO-ED2 under the low RoRE scenario. This is significantly below the lower bound of 1.2x for Baa2 in Moody's ratios presented in figure SA-09.7. Under this scenario there is also an increased need for equity injections, and a general downwards trend on the majority of ratios, which may result in further financial problems for future price controls.
- 2.43.** It is important to recognise the significant additional risks WPD would be taking on with the high levels of expenditure we have proposed. Significant additional expenditure will be subject to uncertainty mechanisms in RIIO-ED2 with the resulting increased risk that additional allowances to recover such expenditure are not received, or not adequate, resulting in a Totex overspend against allowances, and the consequent impact on financeability. Further, there is a significant amount of expenditure, such as the Access SCR expenditure, which Ofgem has said will be subject to an uncertainty mechanism, as the charging arrangements are still subject to consultation.
- 2.44.** We asked NERA to perform stochastic analysis to assess the impact of a range of different scenarios on WPD's licensees. NERA's full report is included in Appendix A03 to this Finance Annex.
- 2.45.** NERA's stochastic analysis demonstrates that there is a substantial downside risk on credit ratings, including the risk of sub-investment grade rating as early as 2025/26 in RIIO-ED2 for all of the WPD DNOs.
- 2.46.** The charts below show the results of NERA's stochastic analysis for WPD. Note that NERA has made adjustments and corrections to Ofgem's model to derive the results below, as set out in its report:

## 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, natural capitalisation rate



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 95<sup>th</sup> percentile. Ofgem's base case also assumes 25bps RoRE expected outperformance, which is not guaranteed, and hence ratios may be even weaker.

Figure SA-09.17 Extract from NERA report: Scenario 1: Ofgem March 2021 SSMD financial parameters

## WPD's financing proposals

2.47. In light of the above, and without further downside adjustments, our proposed financing assumptions in the following section should enable the significant investment required to address the challenges RIIO-ED2 will bring, including the transition to net zero, while addressing the risks and uncertainty within the RIIO-ED2 price control.

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

2.48. WPD is proposing its own set of financing assumptions for RIIO-ED2 and we include an overview of these in this Annex. Further information is included in Chapter 9 of our Business Plan and the appendices to this Finance Annex.

## Cost of debt

2.49. We are not proposing an alternative to Ofgem's cost of debt methodology at this stage. However, we do not consider that Ofgem's working assumption for cost of debt adequately covers additional costs which have to be incurred when borrowing. There is also no recognition of further additional costs for smaller companies. In Appendix A05 to this Finance Annex we include a NERA report commissioned by the ENA which provides evidence that additional costs of borrowing are in the range of 38-48 bps, compared to Ofgem's 25 bps assumption, with an additional 6 bps required to reflect the small company premia licensees face<sup>14</sup>. WPD's financing assumptions therefore include an additional 13 bps on Ofgem's cost of debt working assumption for additional costs of borrowing, to cover the difference between the 25 bps in Ofgem's working

<sup>14</sup>Additional costs of borrowing and small company premium at RIIO-ED2, NERA, 15 June 2021.

assumption and 38 bps, the lowest point of the range proposed by NERA, excluding any allowance for small company premium.

- 2.50.** In relation to cost of debt, we also note that Ofgem's proposed switch from 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 used in Ofgem's financeability assessment, and the associated risk that the cost of debt may therefore no longer be adequate. It is essential this additional risk is recognised by ensuring adequate headroom in any financeability assessment.

## Cost of equity

- 2.51.** Since our July 2021 Business Plan, WPD has commissioned Frontier Economics to provide an updated estimate for the range of our cost of equity over RIIO-ED2, taking into account the recent RIIO-2 determinations as well as other recent regulatory precedent, and up to date market data. Frontier's report is presented in Appendix A04 to this Finance Annex<sup>15</sup> and has been considered as part of our overall cost of capital estimate. In summary, we consider that the appropriate cost of equity for RIIO-ED2 is 4.96%.

## Outperformance adjustment

- 2.52.** As we have stated in all of our responses to Ofgem's methodology consultation for RIIO-ED2, we disagree with Ofgem's proposed reduction of 25 bps to the cost of equity for future outperformance.
- 2.53.** In the recent RIIO-2 appeals by the gas distribution and transmission companies the CMA found in favour of all appellants that the Gas and Electricity Markets Authority (GEMA)<sup>16</sup> was wrong to impose the outperformance wedge, stating the following: "Our view is that GEMA has not demonstrated sufficiently why the extensive set of tools it used for RIIO-2 should be regarded as providing insufficient protection for customers"<sup>17</sup>.
- 2.54.** The CMA found errors in GEMA's analysis of the "extent to which operational outperformance in RIIO-2 should be probable", and stated that even if concerns about outperformance had been substantiated, the "the outperformance wedge would be a poorly designed mechanism to address these concerns"<sup>18</sup>.
- 2.55.** Further, the CMA also recognised that the outperformance wedge "might undermine broader regulatory certainty which could result in increased costs to consumers over time"<sup>19</sup>. As a result, the CMA ordered that the decision to introduce the outperformance wedge should be quashed.
- 2.56.** Ofgem's current working assumptions for RIIO-ED2 still deduct an outperformance wedge of 25 bps from the cost of equity of 4.65% to arrive at a cost of equity of 4.4% as set out in figure SA-09.6. Note that Ofgem's BPFM also includes an outperformance revenue stream equivalent to the additional 0.25% return on equity, which Ofgem assumes companies will earn.
- 2.57.** WPD's financing proposals do not include any outperformance wedge in our cost of equity, or corresponding outperformance revenue stream.

## Aiming up

- 2.58.** We believe companies should always strive for efficiency and innovation, particularly at such a critical time in the net zero transition, and there are key economic arguments that a regulator

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<sup>15</sup>Cost of Equity Assessment for RIIO-ED2, An updated report prepared for WPD, Frontier Economics, 16 November 2021.

<sup>16</sup>Ofgem is governed by GEMA

<sup>17</sup>p.7, CMA, RIIO-2 Energy Licence Modification Appeals, Summary of final determination, Issued: 28 October 2021

<sup>18</sup>p.7, CMA, RIIO-2 Energy Licence Modification Appeals, Summary of final determination, Issued: 28 October 2021

<sup>19</sup>p.7, CMA, RIIO-2 Energy Licence Modification Appeals, Summary of final determination, Issued: 28 October 2021

should 'aim up' when setting the cost of capital to ensure that the task is achieved. This is expanded in the Frontier Economics paper appended to our Business Plan<sup>20</sup>, 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 customer 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 supply as a result of under investment.

**2.59.** In March 2021, the CMA 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<sup>21</sup>. Frontier's report also states "we consider that for the electricity distribution networks...both the need to attract investment and the harm from failure to invest are likely to be greater than in water"<sup>22</sup>.

**2.60.** It is important that Ofgem recognises the additional risk in the Electricity Distribution sector compared to the Gas and Transmission RIIO-2 price controls, given the level of investment required to deliver net zero, the focus on downside only incentives, the level of uncertainty mechanisms in RIIO-ED2 and the significant potential changes in the sector, for example, the Ofgem proposals for Access SCR. Consequently, there is a need to aim up when setting the cost of equity, given the need to secure finance in the sector. End customers are key to ensuring the UK gets to net zero and therefore investment in the distribution network is fundamental to ensuring this can be achieved.

**2.61.** Considering all these factors outlined above, WPD's proposed financial parameters for RIIO-ED2 are:

Parameter	WPD proposed financial parameters, CPIH real
Gearing	60%
Cost of debt	2.217% average for 2023/24-2027/28 period
Cost of equity	4.96% average for 2023/24-2027/28 period
Cost of capital	3.314% average for 2023/24-2027/28 period

**Figure SA-09.18 WPD's proposed financial parameters**

### Cost of equity calculation

**2.62.** We have based our cost of equity assumption above based on a triangulation approach; 4.96% is the mid-point of the range derived in Frontier's report, but also equivalent to the Ofgem working assumption of 4.65% (before the deduction of the outperformance wedge) with an additional 31bps for aiming up, noting that 31 bps for aiming up is lower than the 40 bps Frontier proposes in its report. Note this proposal is supported by the CMA's redetermination of the PR19 cost of equity of 4.73%, once the additional sector risks and the need for significant investment in the Electricity Distribution sector due to net zero are taken into account.

<sup>20</sup>Further analysis of Ofgem's proposal to adjust baseline returns, A report prepared for the ENA, Frontier Economics, September 2020

<sup>21</sup>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

<sup>22</sup>p.5, Cost of Equity Assessment for RIIO-ED2, An updated report prepared for WPD, Frontier Economics, 16 November 2021.

WPD Cost of equity components	Low	High
Notional gearing	60.0%	60.0%
Observed gearing	50.0%	44.0%
Risk-free-rate	-1.61%	-0.65%
Equity risk premium	7.91%	7.55%
Total market return	6.3%	6.9%
Debt beta	0.075	0.075
Equity beta	0.76	0.82
<b>Post-tax cost of equity</b>	<b>4.37%</b>	<b>5.54%</b>
Mid-point	<b>4.96%</b>	

Figure SA-09.19 WPD's cost of equity components

2.63. 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 historic ex post approach, considering a number of averaging methods, holding periods and two methods for deflating nominal historical returns. This also takes account of the CMA's recent judgement at the RIIO GD2/T2 appeals and its analysis from PR19 determinations.
- 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.

2.64. The key results of the financeability assessment using WPD's parameters above are set out in the following tables.

2.65. Outcomes under WPD's own scenario on a notional basis, generated from Ofgem's financial model, are presented below.

Financial ratios under WPD assumptions West Midlands	2023/24	2024/25	2025/26	2026/27	2027/28	RIIO-ED2 AVERAGE
Net debt/Regulated asset value (RAV)	60.86%	62.18%	63.53%	64.62%	65.94%	<b>63.43%</b>
Adjusted interest cover ratio (AICR)	1.41	1.40	1.39	1.39	1.39	<b>1.39</b>
FFO to Interest (including accretions)	4.00	3.93	3.91	3.76	3.79	<b>3.88</b>
FFO/Net debt	13.27%	12.45%	11.75%	11.04%	10.28%	<b>11.76%</b>
Retained cash flow (RCF)/Net debt	10.28%	9.54%	8.96%	7.93%	7.51%	<b>8.84%</b>

Figure SA-09.20 Financial ratios under WPD assumptions (notional) - West Midlands

Financial ratios under WPD assumptions East Midlands	2023/24	2024/25	2025/26	2026/27	2027/28	RIIO-ED2 AVERAGE
Net debt/Regulated asset value (RAV)	61.17%	62.67%	64.23%	65.64%	61.25%	<b>62.99%</b>
Adjusted interest cover ratio (AICR)	1.41	1.39	1.37	1.37	1.50	<b>1.41</b>
FFO to Interest (including accretions)	3.96	3.88	3.86	3.77	4.01	<b>3.90</b>
FFO/Net debt	12.85%	12.07%	11.33%	10.62%	11.25%	<b>11.62%</b>
Retained cash flow (RCF)/Net debt	10.02%	9.27%	8.76%	7.94%	8.11%	<b>8.82%</b>

Figure SA-09.21 Financial ratios under WPD assumptions (notional) - East Midlands

Financial ratios under WPD assumptions South Wales	2023/24	2024/25	2025/26	2026/27	2027/28	RIIO-ED2 AVERAGE
Net debt/Regulated asset value (RAV)	61.98%	64.11%	66.54%	62.08%	63.99%	<b>63.74%</b>
Adjusted interest cover ratio (AICR)	1.40	1.36	1.33	1.46	1.44	<b>1.40</b>
FFO to Interest (including accretions)	3.84	3.65	3.63	3.80	3.68	<b>3.72</b>
FFO/Net debt	12.12%	11.06%	9.96%	10.53%	9.69%	<b>10.67%</b>
Retained cash flow (RCF)/Net debt	9.37%	8.22%	7.71%	7.72%	6.88%	<b>7.98%</b>

Figure SA-09.22 Financial ratios under WPD assumptions (notional) - South Wales

Financial ratios under WPD assumptions South West	2023/24	2024/25	2025/26	2026/27	2027/28	RIIO-ED2 AVERAGE
Net debt/Regulated asset value (RAV)	62.04%	64.29%	66.75%	62.21%	64.14%	<b>63.89%</b>
Adjusted interest cover ratio (AICR)	1.42	1.38	1.35	1.47	1.45	<b>1.41</b>
FFO to Interest (including accretions)	3.79	3.63	3.60	3.77	3.62	<b>3.68</b>
FFO/Net debt	11.77%	10.71%	9.63%	10.16%	9.35%	<b>10.33%</b>
Retained cash flow (RCF)/Net debt	9.11%	8.14%	7.59%	7.58%	6.66%	<b>7.82%</b>

**Figure SA-09.23 Financial ratios under WPD assumptions (notional) - South West**

- 2.66.** As for the outcomes of the Ofgem base case scenario modelling, it can be seen that in the WPD notional scenario, as modelled by Ofgem in the BPFM, gearing is allowed to increase up to 65% before an equity injection is modelled. The impact of such modelled equity issuances for East Midlands in 2027/28, and for South Wales and South West in 2026/27, can be seen in the ratios above, in both cases to bring gearing back down to 60% where it would otherwise exceed 65%. We note that NERA has turned off Ofgem’s modelling of automatic equity injections when gearing increases 5% above notional levels, otherwise the full financeability downside is not represented.
- 2.67.** Under WPD’s own finance assumptions, i.e. using WPD’s proposed cost of equity and cost of debt and removing Ofgem’s 25 bps expected outperformance adjustment, NERA’s modelling shows that the downside risk on rating compared to the Ofgem assumptions is mitigated to an extent, however they do not eliminate this risk fully (see NERA statement on page 12 in Appendix A03 to this Finance Annex). We also note that the BPFM incorrectly applies the excess fast money adjustment when calculating FFO/Net debt, as highlighted in the NERA report. The result of this issue is that the FFO/Net debt ratios presented above, under WPD’s own financing assumptions, are understated. This distortion does not affect the ratios under the Ofgem base case, where the regulatory capitalisation rate is assumed to be the same as the natural capitalisation rate.

## WPD’s proposed Totex capitalisation and depreciation rates

### Totex capitalisation rates

- 2.68.** 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.
- 2.69.** The natural capitalisation rate for WPD’s licensees for RIIO-ED2 ranges from 77.5% to 81.0%, varying by year and by licensee depending upon the mix of work, and which may also change depending upon the type of expenditure ultimately incurred. In this December Business Plan, the Ofgem base case is modelled using WPD’s natural capitalisation rate.
- 2.70.** Our current assumption in this Business Plan is that 75% of Totex will be added to the Regulatory Asset Value (RAV) (i.e. as slow pot costs). This is a slight decrease from WPD’s 80% regulatory capitalisation rate in RIIO-ED1, where WPD’s RIIO-ED1 capitalisation rate is the highest of all the electricity distribution networks. This slight downwards shift aligns WPD more closely with the rest of the electricity distribution sector and is reflective of the greater levels of expenditure on shorter lived assets associated with, for example, DSO and flexibility which facilitate analysis, information provision and more efficient operation of the whole system. This also aligns with our natural capitalisation rate at the end of RIIO-ED1, which is close to 75%.
- 2.71.** Using WPD’s proposed capitalisation rate of 75% has marginally improved 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 financeable.

2.72. It should also be noted that decreasing capitalisation rates does not provide WPD with any additional income over the life of the asset; it is simply a change to the proportion of revenue recovered as fast pot versus slow pot.

## Asset lives

2.73. 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, while all existing assets continue to be depreciated over the current lives of 20 years - 45 years depending upon the year of investment.

2.74. As stated above, 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<sup>23</sup>. 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.

2.75. 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.

2.76. 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.

2.77. 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.

## Evolution of the Regulatory Asset Value (RAV)

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

Evolution of the RAV West Midlands (£million in 2020/21 prices)	2023/24	2024/25	2025/26	2026/27	2027/28
Opening RAV	2,706	2,790	2,878	2,971	3,046
Additions	279	282	287	265	285
Depreciation	-196	-194	-194	-190	-186
<b>Closing RAV</b>	<b>2,790</b>	<b>2,878</b>	<b>2,971</b>	<b>3,046</b>	<b>3,145</b>

Figure SA-09.24 Evolution of the RAV – West Midlands

Evolution of the RAV East Midlands (£million in 2020/21 prices)	2023/24	2024/25	2025/26	2026/27	2027/28
Opening RAV	2,713	2,817	2,920	3,030	3,136
Additions	297	295	303	296	280
Depreciation	-192	-192	-193	-191	-189
<b>Closing RAV</b>	<b>2,817</b>	<b>2,920</b>	<b>3,030</b>	<b>3,136</b>	<b>3,227</b>

Figure SA-09.25 Evolution of the RAV – East Midlands

<sup>23</sup>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](https://www.ofgem.gov.uk/sites/default/files/docs/2011/03/assetlivedecision_0.pdf)

Evolution of the RAV South Wales (£million in 2020/21 prices)	2023/24	2024/25	2025/26	2026/27	2027/28
Opening RAV	1,287	1,363	1,436	1,528	1,605
Additions	165	162	180	166	164
Depreciation	-89	-89	-88	-89	-88
<b>Closing RAV</b>	<b>1,363</b>	<b>1,436</b>	<b>1,528</b>	<b>1,605</b>	<b>1,681</b>

Figure SA-09.26 Evolution of the RAV – South Wales

Evolution of the RAV South West (£million in 2020/21 prices)	2023/24	2024/25	2025/26	2026/27	2027/28
Opening RAV	1,976	2,099	2,222	2,369	2,499
Additions	254	254	278	262	254
Depreciation	-131	-132	-131	-132	-132
<b>Closing RAV</b>	<b>2,099</b>	<b>2,222</b>	<b>2,369</b>	<b>2,499</b>	<b>2,621</b>

Figure SA-09.27 Evolution of the RAV – South West

## Dividend and equity issuance policies

### Dividends

- 2.79.** We note that Ofgem has set a working assumption of a 3% dividend yield, which differs from the RIIO-ED1 assumption of a 5% dividend yield, and does not align with investor expectations of stable dividend growth.
- 2.80.** From 14 June 2021, WPD has been part of National Grid plc, which generates value for investors through a combination of dividend yield and asset growth. In a recent National Grid equity shareholder survey, all respondents stated that the National Grid plc dividend policy to grow the ordinary dividend per share at least in line with the rate of inflation each year for the foreseeable future was an important part of their investment decision. This demonstrates the fact that the level of dividend pay-out is closely monitored by National Grid's shareholders and the wider investment community to assess its sustainability and relative attractiveness within National Grid's peer group and relative to the wider equity market.
- 2.81.** Between January 2009 and August 2019, listed utilities in the UK averaged a 5.3% dividend yield with the FTSE above 4%. Changes to the regulatory model that increase cash generation at the expense of asset growth, such as the move from RPI to CPIH inflation, lead to investors expecting a higher dividend yield in the RIIO-2 period.
- 2.82.** The prominence of the dividend policy in regulated utilities is explained by the long asset lives relative to other UK listed peers, as well as the regulatory price controls that set their revenues. A consistent dividend policy provides confidence to investors of the regulatory commitment to allow equity investors to recover their initial investment and earn a stable return over the long term.
- 2.83.** Any significant change in the level of yield would cause equity investors to question the place of National Grid as a yield stock within their portfolio and reallocate capital elsewhere in the FTSE or to regulated utilities in other jurisdictions and may lead to a 'flight from equity' such as that experienced after the PR19 regulatory agreement in the water sector.
- 2.84.** Investors will also be aware of the wider political environment in the UK, for example since the vote to leave the European Union and November 2019 there were net outflows from UK equities of around 10%, this move from UK equities has been reflected within the regulated energy sector with a reduction in share prices of National Grid (9%), Centrica (66%), and SSE (17%) over the same period.
- 2.85.** We therefore target a 5% dividend yield, consistent with the RIIO-ED1 assumption and consistent with National Grid Electricity and Gas Transmission. The forecast dividend payments included in our plan on this basis are set out below:

Dividends (£million in nominal prices)	2023/24	2024/25	2025/26	2026/27	2027/28
West Midlands	60	63	66	70	73
East Midlands	60	64	68	71	75
South Wales	29	31	34	36	39
South West	44	48	52	56	61
<b>WPD Total</b>	<b>193</b>	<b>206</b>	<b>220</b>	<b>234</b>	<b>248</b>

Figure SA-09.28 – Forecast dividends over the RIIO-ED2 period

## Stakeholder funded initiatives

**2.86.** In Chapter 4, we set out details of our proposal for a “Community Matters” Fund where WPD will use shareholders’ money to support our local communities. Another of our RIIO-ED2 Customer Value Propositions is to support schools with the installation of solar PV equipment. Given that these proposals will be funded entirely by shareholders, there are no costs of this included in our RIIO-ED2 expenditure; rather these projects will be funded out of shareholder returns.

## Equity issuance

**2.87.** As set out in our Sources and uses tables below (figures SA-09.30 – SA-09.34), we have assumed equity contributions are made where necessary as part of our Business Plan under our actual company modelling. We also note that 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 East Midlands in 2027/28, and for South Wales and South West in 2026/27, and the modelling of the Ofgem Base case scenario in the BPFM results in the need for further equity issuances for South Wales and South West in 2026/27, in both cases to bring gearing back down to 60% where it would otherwise exceed 65%, as discussed above.

## Gearing

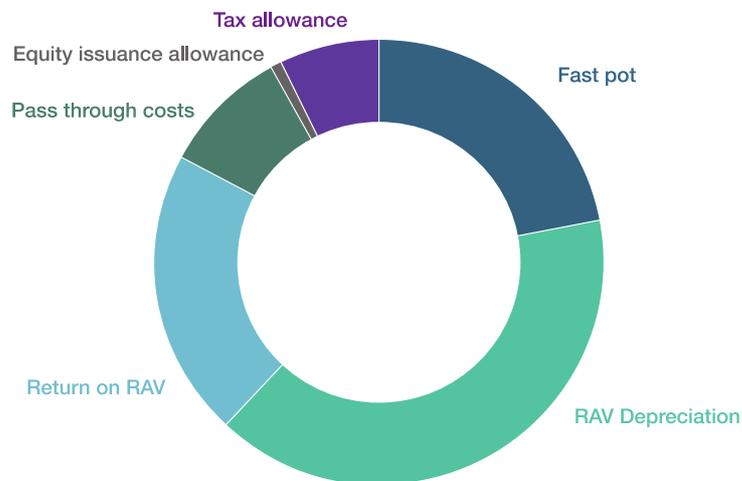
**2.88.** As during RIIO-ED1, WPD intends to ensure that our gearing is aligned to Ofgem’s notional gearing level.

**2.89.** We have considered the impact of different levels of gearing in our Business Plan. Lower levels of gearing require an injection of equity and, given the level of investment we will already need to raise in RIIO-ED2, we do not consider it realistic to propose a lower level of gearing than Ofgem’s working assumption. When considering a higher gearing level, there are trade-offs between reductions in tax charges, and therefore tax allowances, from higher levels of gearing and consequent increased interest costs on the one hand, and increased equity risk and therefore increased equity financing costs on the other. In light of these considerations, we are supportive of Ofgem’s working assumption proposal of 60%, which is a reduction from the current notional gearing of 65% in RIIO-ED1.

**2.90.** We also support Ofgem’s inclusion of an equity issuance allowance, which will be required at the outset of RIIO-ED2 when gearing levels fall from the RIIO-ED1 level of 65% and when gearing rises above 65% during the price control.

## WPD’s revenue requirements for RIIO-ED2

**2.91.** The graphic below presents the key components of WPD’s average customer bill for RIIO-ED2:



**Figure SA-09.29 Key components of WPD's customer bills**

**2.92.** The components in figure SA-09.29 are explained as follows:

- Fast pot – under the RIIO framework, WPD receives a Totex allowance. Applying our proposed 75% regulatory capitalisation rate would mean that we receive 25% of our Totex allowance in the year incurred; this is the Fast pot allowance.
- RAV depreciation – the remaining 75% of our Totex allowance is added to the RAV and funded over time through RAV depreciation.
- Return on RAV is calculated using the cost of capital.
- Pass through costs are costs recovered from Ofgem on a 'pass through' basis; these include licence fees, business rates and transmission exit charges.
- Equity issuance allowance – this is an allowance for transaction costs associated with notional equity issuance.
- Tax Allowance – this is an allowance to recover our current tax charge on regulated activities, calculated using Ofgem's methodology.

## Sources and uses of cash during RIIO-ED2

**2.93.** 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. The tables below show the sources and uses of cash during RIIO-ED2 for our four DNOs.

Sources and uses of cash in RIIO-ED2 (£million in nominal prices)						
West Midlands	2023/24	2024/25	2025/26	2026/27	2027/28	Total
<b>Sources of funds</b>						
Revenues	533	530	540	530	542	2,676
New debt	94	98	104	95	115	506
Debt refinancing	0	400	250	0	0	650
Equity contribution (assumed)	27	46	45	37	52	206
<b>Total sources of funds</b>	<b>654</b>	<b>1,074</b>	<b>939</b>	<b>663</b>	<b>709</b>	<b>4,038</b>

Uses of funds						
Pass through costs	-49	-50	-52	-52	-53	-257
Operating costs	-89	-91	-93	-94	-96	-463
Capex	-328	-338	-352	-325	-363	-1,706
Tax	-42	-42	-42	-37	-36	-199
Pensions deficit	0	0	0	0	0	0
Interest	-86	-89	-85	-85	-87	-432
Dividends (5% real)	-60	-63	-66	-70	-73	-332
Maturing debt	0	-400	-250	0	0	-650
<b>Total uses of funds</b>	<b>-654</b>	<b>-1,074</b>	<b>-939</b>	<b>-663</b>	<b>-709</b>	<b>-4,038</b>

Figure SA-09.30 Sources and uses of cash – West Midlands

Sources and uses of cash in RIIO-ED2 (£million in nominal prices)						
East Midlands	2023/24	2024/25	2025/26	2026/27	2027/28	Total
<b>Sources of funds</b>						
Revenues	533	530	543	545	558	2,709
New debt	94	95	104	104	97	494
Debt refinancing	0	0	0	0	0	0
Equity contribution (assumed)	17	30	42	45	29	162
<b>Total sources of funds</b>	<b>643</b>	<b>655</b>	<b>690</b>	<b>693</b>	<b>684</b>	<b>3,365</b>

Uses of funds						
Pass through costs	-48	-49	-50	-51	-52	-248
Operating costs	-92	-94	-94	-97	-99	-476
Capex	-350	-355	-375	-372	-354	-1,805
Tax	-40	-39	-42	-38	-38	-198
Pensions deficit	0	0	0	0	0	0
Interest	-53	-55	-60	-64	-67	-299
Dividends (5% real)	-60	-64	-68	-71	-75	-338
Maturing debt	0	0	0	0	0	0
<b>Total uses of funds</b>	<b>-643</b>	<b>-655</b>	<b>-690</b>	<b>-693</b>	<b>-684</b>	<b>-3,365</b>

Figure SA-09.31 Sources and uses of cash – East Midlands

Sources and uses of cash in RIIO-ED2 (£million in nominal prices)						
South Wales	2023/24	2024/25	2025/26	2026/27	2027/28	Total
<b>Sources of funds</b>						
Revenues	261	259	272	280	275	1,346
New debt	67	66	81	74	76	364
Debt refinancing	0	0	0	0	0	0
Equity contribution (assumed)	20	31	43	28	36	157
<b>Total sources of funds</b>	<b>347</b>	<b>356</b>	<b>396</b>	<b>381</b>	<b>386</b>	<b>1,867</b>

<b>Uses of funds</b>						
Pass through costs	-26	-26	-27	-27	-28	-133
Operating costs	-52	-53	-55	-55	-56	-272
Capex	-193	-192	-224	-207	-209	-1,026
Tax	-16	-16	-17	-18	-14	-81
Pensions deficit	-4	-6	-6	-2	-2	-20
Interest	-28	-31	-34	-35	-38	-166
Dividends (5% real)	-29	-31	-34	-36	-39	-169
Maturing debt	0	0	0	0	0	0
<b>Total uses of funds</b>	<b>-347</b>	<b>-356</b>	<b>-396</b>	<b>-381</b>	<b>-386</b>	<b>-1,867</b>

Figure SA-09.32 Sources and uses of cash – South Wales

Sources and uses of cash in RIIO-ED2 (£million in nominal prices)						
South West	2023/24	2024/25	2025/26	2026/27	2027/28	Total
<b>Sources of funds</b>						
Revenues	387	389	409	423	413	2,021
New debt	103	96	123	123	110	556
Debt refinancing	0	0	0	250	0	250
Equity contribution (assumed)	40	65	73	45	60	282
<b>Total sources of funds</b>	<b>531</b>	<b>549</b>	<b>605</b>	<b>841</b>	<b>584</b>	<b>3,109</b>

<b>Uses of funds</b>						
Pass through costs	-32	-33	-35	-35	-36	-171
Operating costs	-79	-80	-82	-83	-84	-409
Capex	-300	-307	-350	-331	-325	-1,612
Tax	-21	-23	-24	-25	-22	-116
Pensions deficit	-7	-10	-10	-3	-3	-32
Interest	-48	-48	-52	-56	-53	-258
Dividends (5% real)	-44	-48	-52	-56	-61	-261
Maturing debt	0	0	0	-250	0	-250
<b>Total uses of funds</b>	<b>-531</b>	<b>-549</b>	<b>-605</b>	<b>-841</b>	<b>-584</b>	<b>-3,109</b>

Figure SA-09.33 Sources and uses of cash – South West

Sources and uses of cash in RIIO-ED2 (£million in nominal prices)						
WPD Total	2023/24	2024/25	2025/26	2026/27	2027/28	Total
<b>Sources of funds</b>						
Revenues	1,714	1,708	1,764	1,778	1,789	8,752
New debt	358	355	413	396	398	1,920
Debt refinancing	0	400	250	250	0	900
Equity contribution (assumed)	104	172	203	154	175	807
<b>Total sources of funds</b>	<b>2,175</b>	<b>2,635</b>	<b>2,629</b>	<b>2,578</b>	<b>2,363</b>	<b>12,380</b>

<b>Uses of funds</b>						
Pass through costs	-155	-158	-163	-165	-169	-809
Operating costs	-312	-318	-325	-330	-336	-1,621
Capex	-1,170	-1,192	-1,301	-1,235	-1,251	-6,149
Tax	-119	-121	-125	-118	-110	-594
Pensions deficit	-11	-15	-15	-5	-5	-52
Interest	-215	-224	-231	-241	-244	-1,155
Dividends (5% real)	-193	-206	-220	-234	-248	-1,101
Maturing debt	0	-400	-250	-250	0	-900
<b>Total uses of funds</b>	<b>-2,175</b>	<b>-2,635</b>	<b>-2,629</b>	<b>-2,578</b>	<b>-2,363</b>	<b>-12,380</b>

Figure SA-09.34 Sources and uses of cash – WPD Total

- 2.94.** Note that the presentation above shows pension deficit repair contributions of £52 million; based upon current market conditions we are not currently anticipating the requirement for any further allowances in RIIO-ED2 to cover these.

## Availability of capital

- 2.95.** We will need to raise a significant amount of capital during RIIO-ED2 to fund our RIIO-ED2 Totex expenditure of approximately £6.7 billion (2020/21 prices; £7.8 billion Opex and Capex in nominal prices shown above), 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 allowed cost of capital, and the opportunity to earn incentive revenues, is set at an appropriate rate to attract this investment.
- 2.96.** In its report 'Further analysis of Ofgem's proposal to adjust baseline returns'<sup>24</sup>, Frontier 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.
- 2.97.** 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. Given that the cost of equity is inherently unknown, aiming up is not, in fact, deliberately setting the return too high, rather it is reducing the risk of setting it too low.

## Further details on the impact on customer bills

- 2.98.** 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).
  - Changes to Totex capitalisation and asset lives.
- 2.99.** Our current calculations estimate that the impact of the increased expenditure set out in WPD's baseline expenditure outlined above would result in an approximate £3.37 annual increase on the average WPD domestic bill in RIIO-ED2, if all other elements of the price control were unchanged. The impact ranges between £1.03 and £7.00 for individual WPD DNO's based on stakeholder required expenditure as set out in chapter 6.
- 2.100.** However, based on our latest analysis, this increase is broadly 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 WPD RIIO-ED2 domestic customer bill broadly in line with the end of RIIO-ED1 after adjusting for macro-economic changes outside of our control as shown in figure SA-09.49.
- 2.101.** Customers will benefit from the £243 million additional annual investment we are making in RIIO-ED2. However, once other factors are taken into consideration, we calculate that the

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<sup>24</sup> Further analysis of Ofgem's proposal to adjust baseline returns", A report prepared for the ENA, Frontier Economics, September 2020

average WPD domestic bill in RIIO-ED2 will decrease by £2.11 from the normalised 2022/23 position, even when taking account of the impact of this £1.2 billion of additional expenditure over the RIIO-ED2 price control. We have calculated the impact on the individual DNO bills to range between a £4.67 decrease (West Midlands) and a £2.43 increase (South Wales), as shown in figures SA-09.40 to SA-09.43.



**Figure SA-09.35 Impact of Totex on RIIO-ED2 Average Domestic Bill – West Midlands – 2020/21 prices**



**Figure SA-09.36 Impact of Totex on RIIO-ED2 Average Domestic Bill – East Midlands – 2020/21 prices**



**Figure SA-09.37 Impact of Totex on RIIO-ED2 Average Domestic Bill – South Wales – 2020/21 prices**

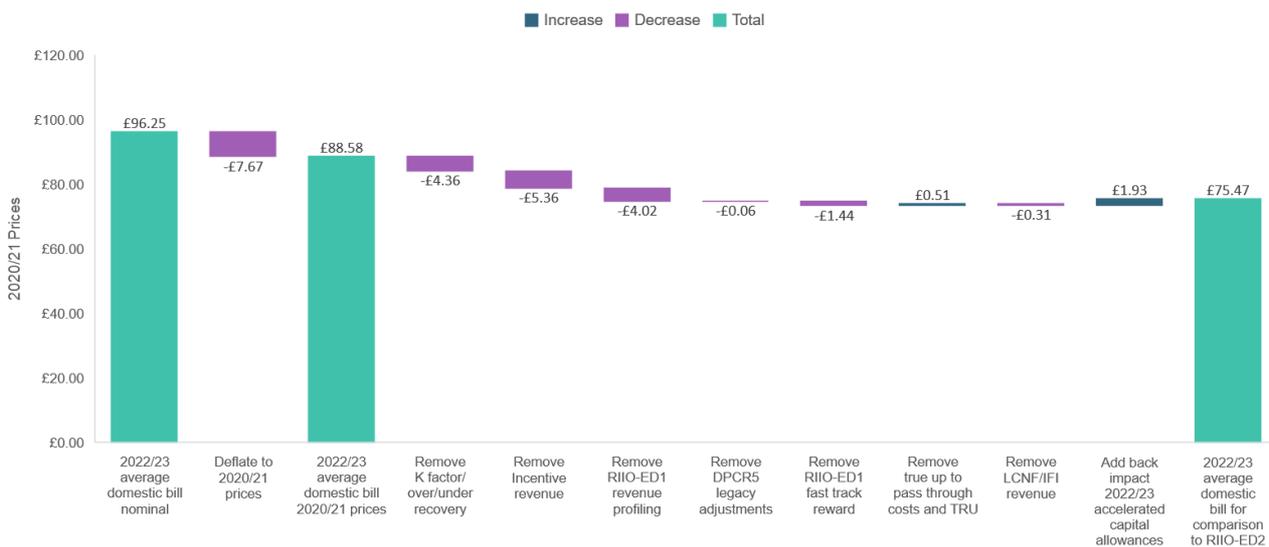


**Figure SA-09.38 Impact of Totex on RIIO-ED2 Average Domestic Bill – South West – 2020/21 prices**



**Figure SA-09.39 Impact of Totex on RIIO-ED2 on Average Domestic Bill – WPD – 2020/21 prices**

**2.102.** The following charts demonstrate how we have adjusted the published 2022/23 average domestic network charges for WPD, to put them 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-09.40 2022/23 Average Domestic Bill (normalised) – West Midlands**

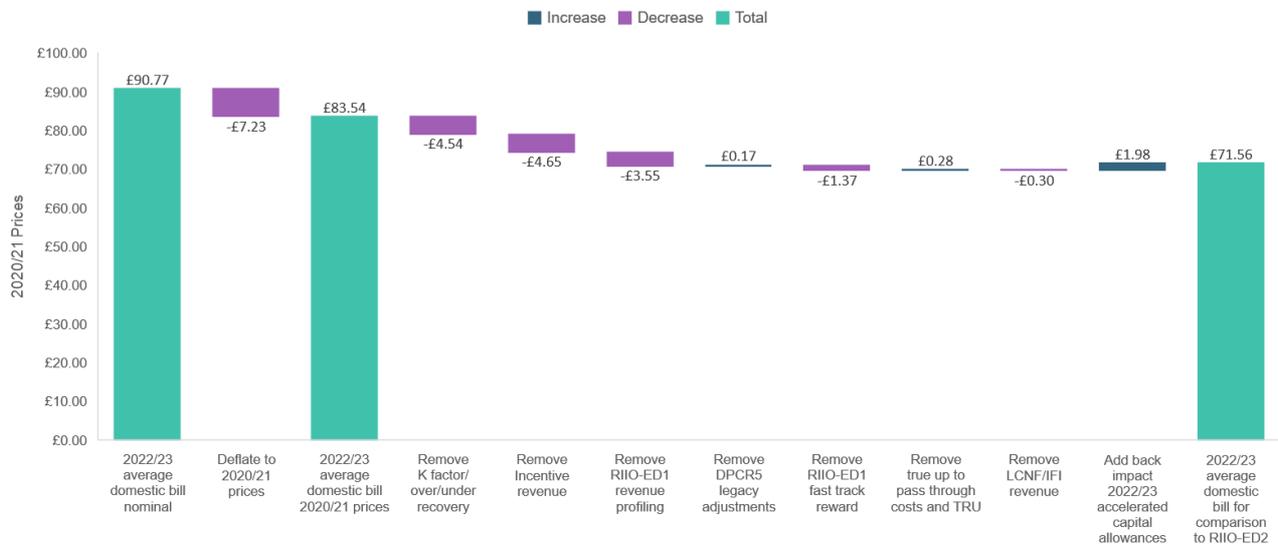


Figure SA-09.41 2022/23 Average Domestic Bill (normalised) – East Midlands

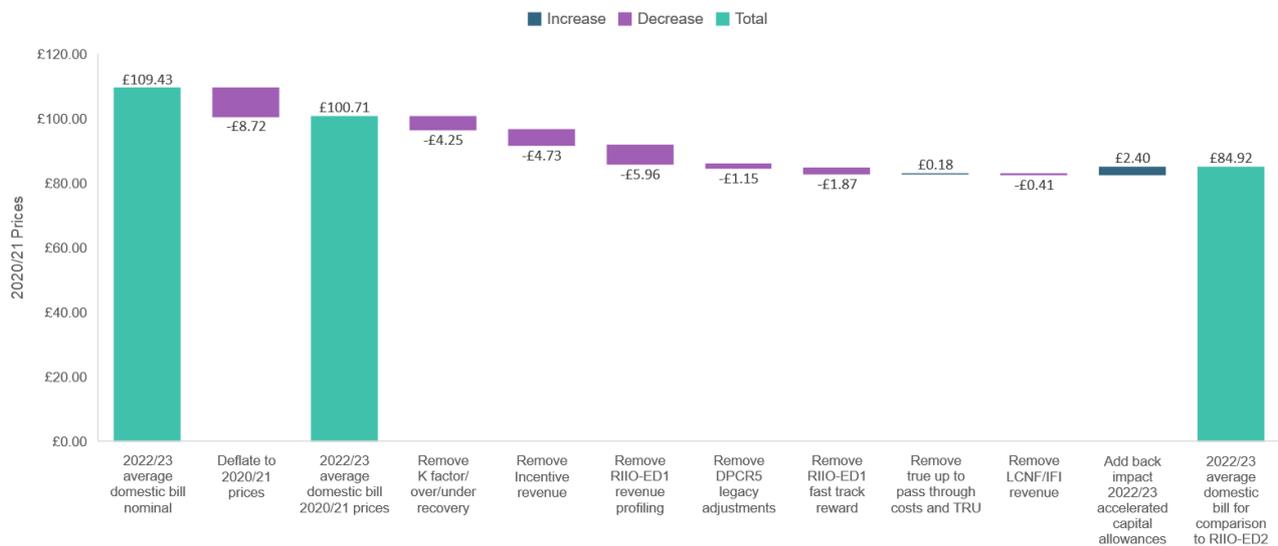


Figure SA-09.42 2022/23 Average Domestic Bill (normalised) – South Wales

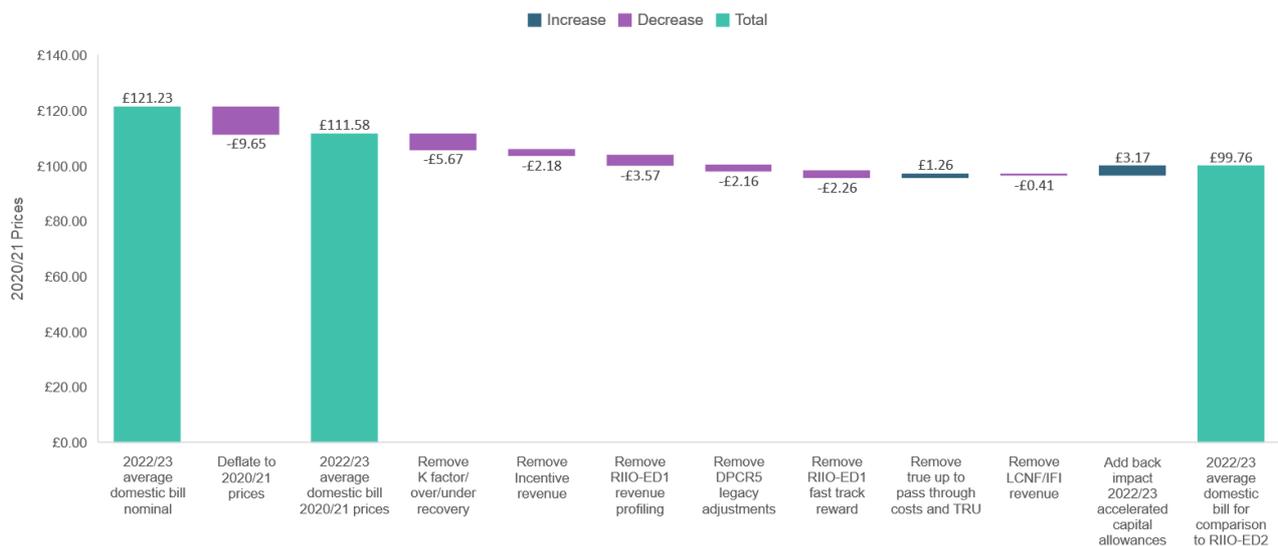
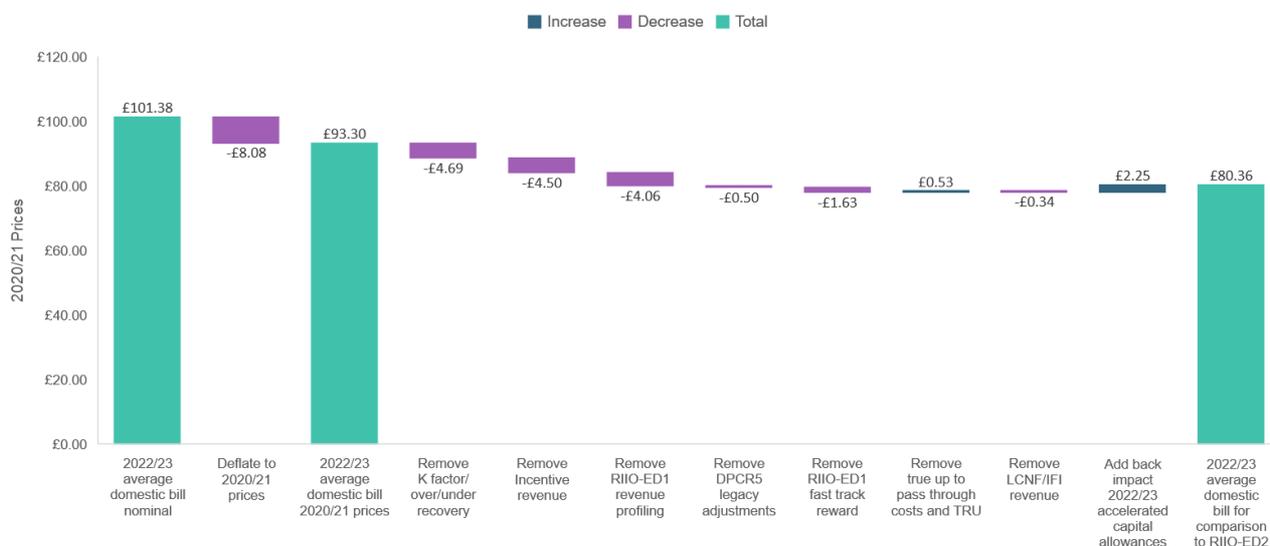


Figure SA-09.43 2022/23 Average Domestic Bill (normalised) – South West



**Figure SA-09.44 2022/23 Average Domestic Bill (normalised) – WPD Total**

- 2.103.** The position presented in figure SA-09.44 is for an average WPD domestic customer. The normalised bill for the average domestic customer at the end of RIIO-ED1 for each of our four DNOs ranges between £71.56 for East Midlands, £75.47 for West Midlands, £84.92 for South Wales and £99.76 for South West.
- 2.104.** Figure SA-09.49 subsequently demonstrates the impact of our proposed RIIO-ED2 policies on the average WPD domestic customer bill for RIIO-ED2. Figures SA-09.45 to SA-09.48 show the position for each of our four licensees.
- 2.105.** 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 corporation tax are shown as increases to the £80.36 WPD average bill at the end of RIIO-ED1, leading to the adjusted end of RIIO-ED1 bill being £91.62 for comparative purposes.
- 2.106.** The changes to the average bill after macro-economic impacts shown in figure SA-09.49 (i.e. those in the green and purple bars) represent 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.
- 2.107.** Our proposals under WPD's baseline expenditure would result in WPD's average domestic customer's bill falling from £91.62 at the end of RIIO-ED1 to an average of £89.51 in RIIO-ED2, a £2.11 (2%) reduction in real terms.
- 2.108.** The position for each of the four DNOs varies depending on their specific bill starting position at the end of RIIO-ED1, and the DNO specific investment proposals. The individual DNO charts below demonstrate how bills will fall in two of our DNOs in real terms under the baseline scenario - West Midlands and East Midlands DNO; with two increasing - South Wales DNO will increase by 2.5% and South West by 1.1%, due to the greater levels of investment in new infrastructure that will be undertaken in those two regions.

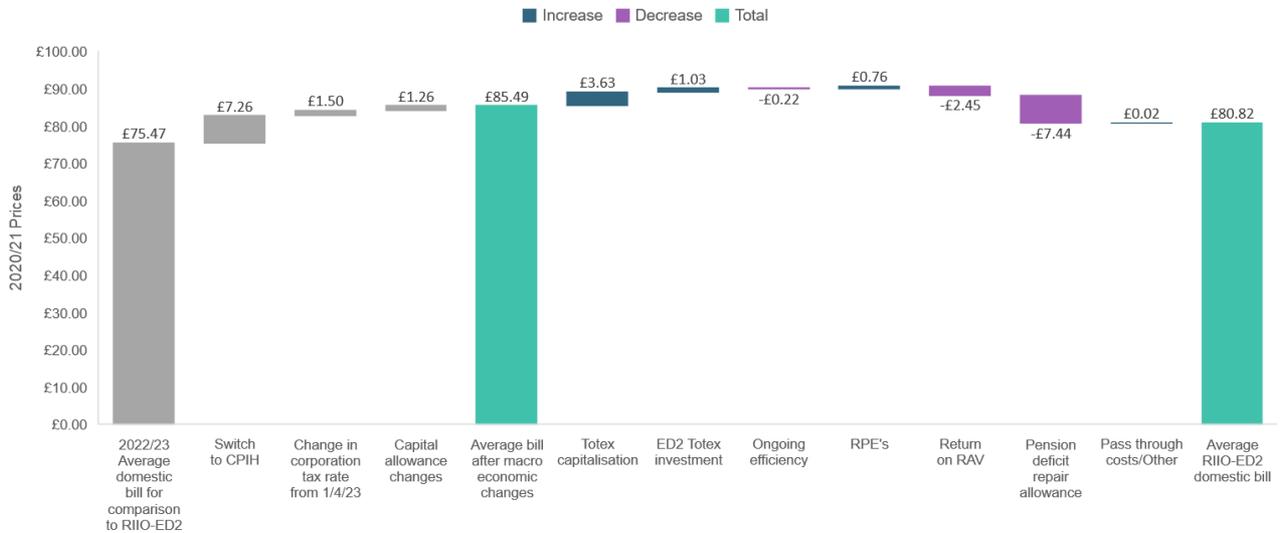


Figure SA-09.45 Average Domestic Bill – West Midlands

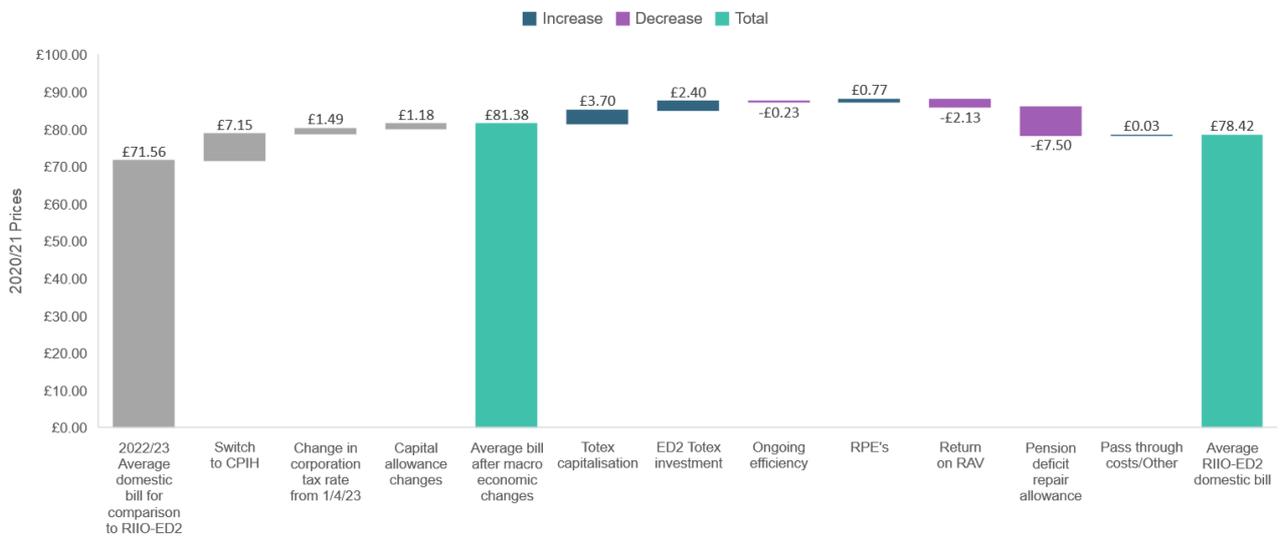


Figure SA-09.46 Average Domestic Bill – East Midlands

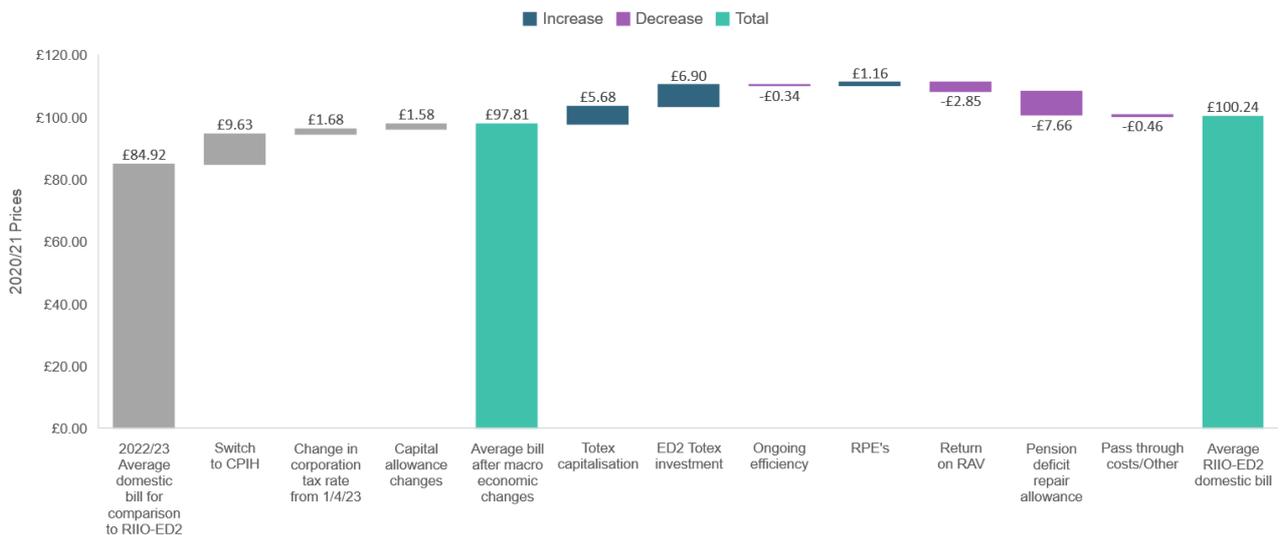


Figure SA-09.47 Average Domestic Bill – South Wales

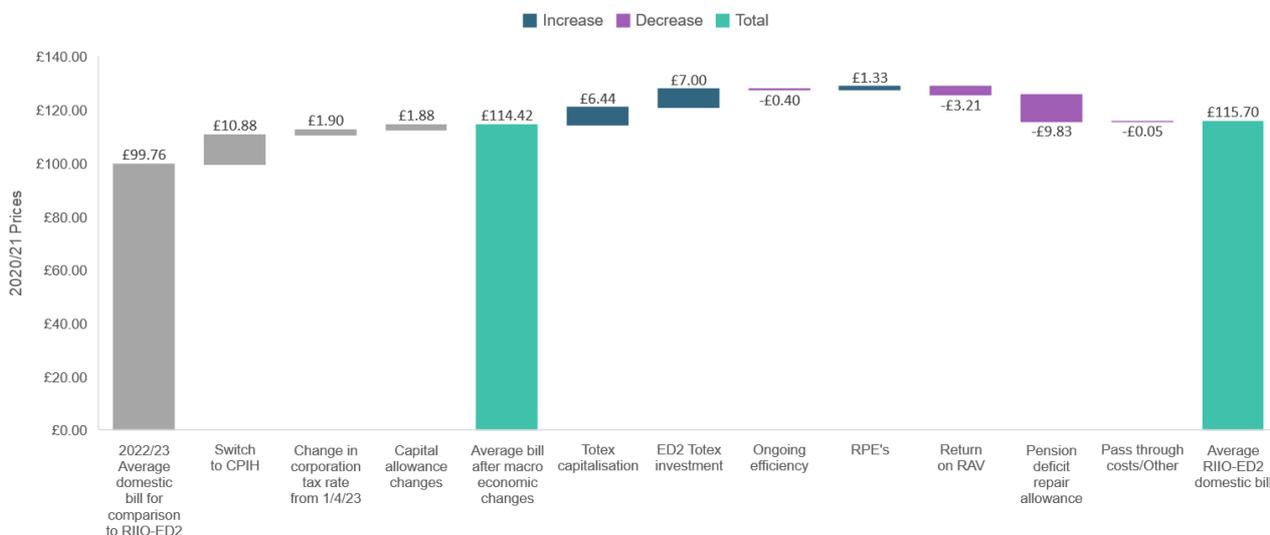


Figure SA-09.48 Average Domestic Bill – South West

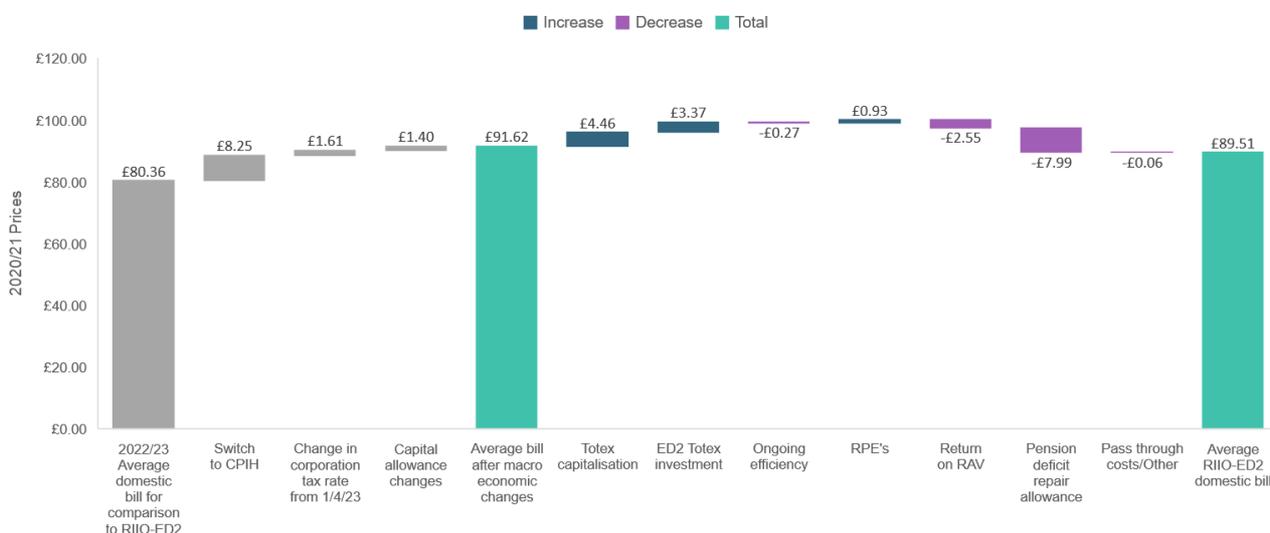


Figure SA-09.49 Average Domestic Bill – WPD Total

## Other policy areas: related party costs, taxation, capital allowance pools, business rates and pensions

### Related party costs

- 2.109.** 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. That DNO provides services to the other DNOs, the costs of which are charged to those other DNOs on an arm's length basis.
- 2.110.** 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.

- 2.111.** 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

- 2.112.** In the Spring 2021 Budget, the Government announced that the corporation tax rate would increase to 25% from 1 April 2023. Ofgem's BPFM therefore uses this rate in modelling the tax charge and corresponding tax allowance in the Business Plan for the RIIO-ED2 period.
- 2.113.** Tax for price control purposes is on a cash basis so deferred tax is ignored.

### Capital allowance pools

- 2.114.** In the RIIO-ED1 Final Proposals, Ofgem stated that it would roll forward regulatory tax pool calculations at the end of the RIIO-ED1 period<sup>25</sup>. 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.
- 2.115.** 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.
- 2.116.** 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.
- 2.117.** One significant development in the Spring 2021 Budget was the announcement 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.
- 2.118.** We set out below our projections for the taxation allowance that is included in this RIIO-ED2 Business Plan under our baseline expenditure scenario:

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<sup>25</sup>Table A9.1, p.101. Ofgem, RIIO-ED1: Final determinations for the slow-track electricity distribution companies, 28 November 2014.

Tax allowance (£million in 2020/21 prices)	West Midlands	East Midlands	South Wales	South West	WPD total
RIIO-ED1 annual average	16	15	8	10	49
RIIO-ED2 annual average	35	34	14	22	105
<b>RIIO-ED2 total (5 years)</b>	<b>173</b>	<b>169</b>	<b>72</b>	<b>112</b>	<b>526</b>

Figure SA-09.50 Taxation allowance

## Business rates

**2.119.** 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.

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

Business Rates funded through DUoS (£million in 2020/21 prices)	West Midlands	East Midlands	South Wales	South West	WPD total
RIIO-ED1 annual average	31	36	15	19	101
RIIO-ED2 annual average	30	28	13	19	90
<b>RIIO-ED2 total (5 years)</b>	<b>148</b>	<b>141</b>	<b>67</b>	<b>95</b>	<b>452</b>

Figure SA-09.51 Business rates funded through DUoS

## Pensions

**2.121.** 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

**2.122.** 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.

**2.123.** 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.

**2.124.** 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.

**2.125.** 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

**2.126.** We operate two main defined benefit (DB) 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.

- 2.127.** 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.
- 2.128.** 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.
- 2.129.** 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.<sup>26</sup>
- 2.130.** 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 (£million in 2021/21 prices)	West Midlands	East Midlands	South Wales	South West	WPD total
RIIO-ED1 annual average	15	14	9	14	51
RIIO-ED2 annual average	19	17	13	21	70
<b>RIIO-ED2 total (5 years)</b>	<b>96</b>	<b>86</b>	<b>65</b>	<b>104</b>	<b>352</b>

Figure SA-09.52 Ongoing pension costs expenditure within Totex (DB and DC schemes)

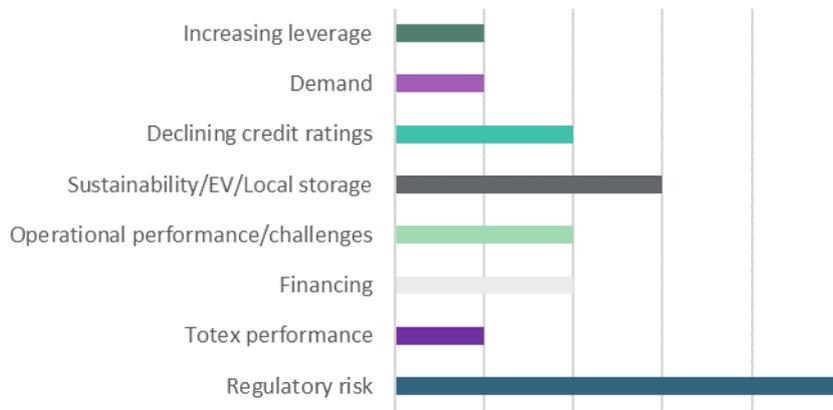
Established pension deficit repair costs funded through DUoS (£million in 2021/21 prices)	West Midlands	East Midlands	South Wales	South West	WPD total
RIIO-ED1 annual average	40	40	27	42	148
RIIO-ED2 annual average	0	0	0	0	0
<b>RIIO-ED2 total (5 years)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Figure SA-09.53 Established pension deficit repair costs funded through DUoS

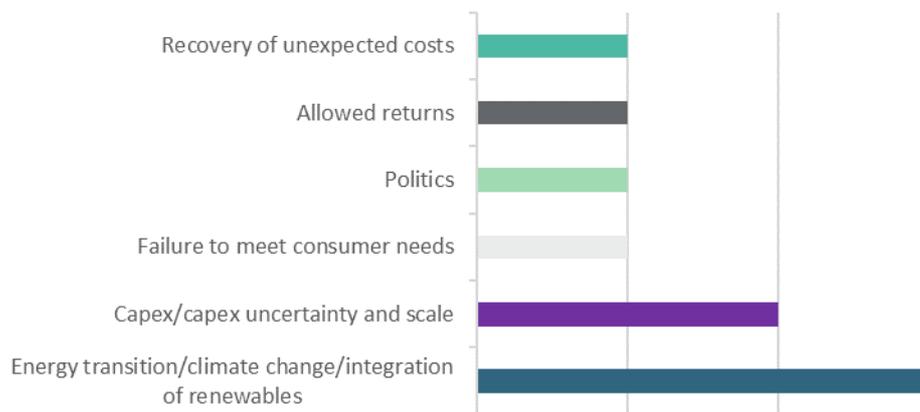
## Stakeholder feedback

- 2.131.** As part of the process of assessing the financeability of our plan we consulted our core banking group and also some of our key investors in April 2021. The questionnaires sent to both groups and a summary of their responses, set out on an anonymous basis, can be found in Appendix A06 to this Finance Annex.
- 2.132.** Figures SA-09.54 and SA-09.55 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:

<sup>26</sup>SSMD Finance Annex, p.70.



**Figure SA-09.54 Bank investors' view of risks**



**Figure SA-09.55 Bond investors' view of risks**

- 2.133.** 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.
- 2.134.** 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.
- 2.135.** 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 to facilitate a range of future scenarios. In the RIIO-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"<sup>27</sup>.
- 2.136.** Figure SA-09.56 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:

<sup>27</sup>p.5, RIIO-ED2 Methodology Decision: Overview, Ofgem, 17 December 2020.

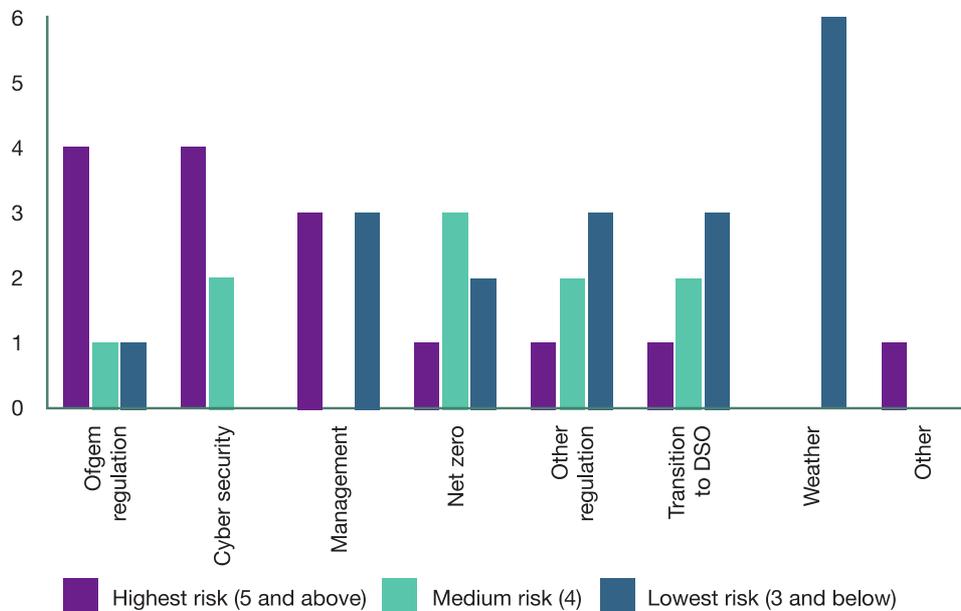


Figure SA-09.56 Bank investors' rating of risk factors

## Board assurance regarding the proposed financial package for RIIO-ED2

- 2.137.** Within Chapter 9, this Finance Annex and associated appendices, we have provided a detailed assessment of the financial package prescribed by Ofgem in the published Business Plan Guidance document and the SSMD Finance Annex, and provided evidence to demonstrate whether our licensees are financeable on both a notional and actual capital structure basis, using the Ofgem working assumptions. As a result, we have identified that the outcome of the financeability metrics is significantly below WPD's stated ratio target and that there is a substantial downside risk on credit ratings, including the risk of sub-investment grade rating, for all of the WPD DNOs.
- 2.138.** We have evaluated whether it is appropriate to adjust capitalisation rates, asset lives, dividends and gearing, or to refinance debt to address the financeability issues under Ofgem's working assumptions. Our conclusion is that these measures alone do not provide adequate resolution to the financeability issues and a small uplift to the cost of equity and cost of debt is also required. We therefore set out an alternative financing package which reflects these adjustments and we have also performed a detailed assessment of WPD's proposed alternative financial package. Full details of the outcome of our assessment of the Ofgem base case and our alternative financing package are set out in Appendices A01 and A02 to this Finance Annex.
- 2.139.** Given the critical importance of delivering net zero, and the level of investment our stakeholders have supported 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 will require to finance such a transformational plan. Furthermore, 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.
- 2.140.** While 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 downside risks to Ofgem's working assumptions. It is also clear that there are wider considerations in any financeability assessment.
- 2.141.** It is important that our licensees are not simply financeable, but have a robust enough financial position to withstand unforeseen shocks. For example, DNOs were expected to assist suppliers

during the 2020 pandemic, and also more recently with the failure of suppliers due to the energy crisis, therefore if we are to provide support from our own balance sheet then Ofgem needs to ensure that we are financeable. 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" financing scenarios.

- 2.142.** 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 are largely focused on downside adjustments to returns.
- 2.143.** 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.
- 2.144.** The Board is satisfied that our licensees are financeable on both a notional and actual capital structure basis under WPD's proposed alternative financing proposals.

## 3. Appendices

### Appendix A01 Ofgem base case - Financeability assessment

- 3.1. This appendix includes our financeability assessment of Ofgem's working assumptions, and sets out the credit ratios under Ofgem's base case, generated by Ofgem's Business Plan Financial Model (BPFM), and how these credit ratios vary under a range of stress-test scenarios, as required by Ofgem.
- 3.2. The appendix can be found on our website at:  
<https://yourpowerfuture.westernpower.co.uk/downloads-view/41751>

### Appendix A02 WPD financing proposal - Financeability assessment

- 3.3. This appendix includes our financeability assessment and the credit ratios under WPD's financing proposal, generated by Ofgem's Business Plan Financial Model (BPFM).
- 3.4. The appendix can be found on our website at:  
<https://yourpowerfuture.westernpower.co.uk/downloads-view/41754>

### Appendix A03 RIIO-ED2 Financeability Assessment: Stochastic Risk Modelling, prepared for WPD, a report by NERA

- 3.5. We asked NERA 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.
- 3.6. The report can be found on our website at:  
<https://yourpowerfuture.westernpower.co.uk/downloads-view/41757>

### Appendix A04 Frontier Economics update on WPD Cost of equity

- 3.7. In November 2021, WPD commissioned Frontier economics to provide an updated 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.
- 3.8. The report can be found on our website at:  
<https://yourpowerfuture.westernpower.co.uk/downloads-view/41760>

### Appendix A05 NERA report on Additional costs of borrowing and Small Company Premium at RIIO-ED2

- 3.9. 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.
- 3.10. The report can be found on our website at:  
<https://yourpowerfuture.westernpower.co.uk/downloads-view/41763>

## Appendix A06 WPD stakeholder engagement

- 3.11.** As part of the process of assessing the financeability of our plan we consulted our core banking group and also some of our key investors in April 2021. The questionnaires sent to both groups and a summary of their responses, set out on an anonymous basis, can be found in this Appendix.
- 3.12.** The appendix can be found on our website at:  
<https://yourpowerfuture.westernpower.co.uk/downloads-view/41766>