

# Risk and Return PR24 data tables commentary

October 2023



## Risk and Return PR24 Table Commentary

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# RR1 Revenue cost recovery inputs

## Wholesale WACC Lines 1.1 - 1.18

The WACC parameters for AMP8 are consistent with Ofwat’s notional assumptions outlined in Appendix 11 (“Allowed return on capital”) of the PR24 Final Methodology and reported in table RR26, with notional gearing set at 55%, nominal cost of equity calculated inflating the real wholesale cost of equity (4.01%, as per RR26.11) using the long-term CPIH inflation rate, and similarly nominal cost of debt derived by inflating the real allowed cost of debt (2.60%, as per RR26.16).

The AMP9 notional gearing and cost of equity are set constant to the AMP8 level, while the cost of debt is recalculated by applying an increased percentage of new debt to the AMP8 notional embedded and new debt rates.

The average percentage of new debt in AMP9 is derived assuming that the annual % change in new debt in AMP9 is constant and consistent with the AMP8 assumed notional 17% average new debt percentage.

## PAYG and Run-off - PAYG Lines 1.19 - 1.36

Calculated annually and separately for each control on a “natural” basis, that is, as Opex (net of price control and non-price control grants and contributions) divided by Totex (net of price control and non-price control grants and contributions), as sourced from table RR2.

No adjustments are applied to the base rates.

## PAYG and Run-off - Run-off Lines 1.37 - 1.72

Run-off rates are set using the lower between the PR19 run-off rates and the upper thresholds prescribed in Ofwat’s Final Methodology (Table 7.3, Appendix 10 - “Aligning risk and return”). No adjustments are applied to the base rates.

Further explanation of our run off rates is included in our chapter on Risk and Return.

## Long term inflation rates Line 1.73

Long-term CPIH is 2%, consistent with Ofwat’s long-term inflation assumption and as reported in PD1.38.

## RPI-CPIH wedge Line 1.74

The RPI-CPIH wedge is calculated as the differential between RPI and CPIH indexation rates (PD1.27 and PD1.28) provided in Table PD1.

# RR2 Totex inputs to cross reference with CA

## Company Inputs - Opex Lines (Equity Issuance costs) Lines 2.13 - 2.18

Issuance costs are calculated applying a notional 2% cost assumption to the estimated equity issuance amounts (RR4.65 - 4.70). The percentage assumption is sourced from section 6.1 of Appendix 10 of the Final Methodology (“Where equity is required to fund real RCV growth, we will provide an allowance for issuance costs of two percentage point of the equity raised”).

## Company Inputs - Grants and contributions Lines 2.25 - 2.48

### Developer Services Summary

The data populated for the following lines relates to Developer Services activities for Water and Wastewater

The data correlates with the data presented in tables CW1 and CWW1 which reflect the expenditure and revenue reported in tables DS1e, DS2 and DS3.

The data has been populated for all 5 years of AMP8 (2025-2030), as per the forecast shown in table DS4. The data requires AMP9 years (2030-2035) to be populated and we have therefore used our AMP8 data and projected this forward using an ONS growth forecast, consistent to our approach for the AMP8 business plan.

All assumptions and explanations of the data can be found in the developer services tables mentioned.

# RR3 RCV opening balances

All values are sourced from the output of the submitted "PR24 RCV adjustments" feeder model.

# RR4 Financing financial model inputs

## Debt Lines 4.1 - 4.6

In populating the parameters for the notional financing structure to use in the financial model, we have applied and sought to maintain consistency with the Final Methodology assumptions, as outlined in section 6.1 of Appendix 10. As such, notional target gearing is set to 55%, index-linked debt to 33% of total debt, proportion of RPI ILD to 100%.

The RPI ILD proportion (100%) is consistent with the company's actual debt structure, as well as with Ofwat's guidance from section 6.3.2 of Appendix 10 ("we see no reason to change the opening proportion from PR19 at 33% linked to RPI").

## Index Linked Debt Lines 4.7 - 4.14

### Lines 9 to 14: Opening index linked debt

Index linked debt accretes in line with the indexation rates shown in PD1. The March 2025 closing debt balance includes forecast debt issuances between April 2023 and March 2025 as taken from the latest Board approved business plan. The total index linked debt balance consists of RPI, CPI and CPIH debt on a post-swap basis. We do not commercially and economically issue debt for/by individual price controls. The debt balance is apportioned to each price control based on the price control proportion of 31st March 2025 closing RCV. The additional price controls (ADDN1 and ADDN2) are not applicable.

## Fixed Rate Debt Lines 4.15 - 4.20

### Lines 15 to 20: Opening fixed rate debt

The March 2025 closing debt balance includes forecast debt issuances between April 2023 and March 2025 as taken from the latest Board approved business plan. The total fixed rate debt balance is on a post-swap basis. We do not commercially and economically issue debt for/by individual price controls. The debt balance is apportioned to each price control based on the price control proportion of 31st March 2025 closing RCV. The additional price controls (ADDN1 and ADDN2) are not applicable.

## Floating Rate Debt Lines 4.21 - 4.26

### Lines 21 to 26: Opening floating rate debt

The March 2025 closing debt balance includes forecast debt issuances between April 2023 and March 2025 as taken from the latest Board approved business plan. The total floating rate debt balance is on a post-swap basis. We do not commercially and economically issue debt for/by individual price controls. The debt balance is apportioned to each price control based on the price control proportion of 31st March 2025 closing RCV. The additional price controls (ADDN1 and ADDN2) are not applicable.

## Index Linked, Fixed Rate Debt and Cash Lines 4.27 - 4.56

These are set consistently with the Ofwat FM allowed cost of debt : interest rates on fixed rate debt and cash are equal to the nominal allowed cost of debt, while cash interest rates on CPIH and RPI linked debt are respectively derived by deflating nominal allowed cost of debt, respectively using the assumed long-term CPIH rate and RPI rate (as the sum of long-term CPIH and assumed wedge).

## Equity Lines 4.57 - 4.85

"Ordinary shares issues" (RR4.65 - 4.70) are the modelled equity injection amounts required to maintain gearing at the target 55% throughout AMP8. Consistently with section 6.1 of Appendix 10 ("For our determinations, we intend to retain a minimum assumption for dividend yield that is 50% of the base [4%] yield."), we assume a flat 2% dividend yield in all years, which is reflected by setting the yield in RR4.79 to 2% and the real growth rates in RR4.78 to 0%.

# RR5 Tax opening balances

## Tax opening balance Lines 5.1 - 5.19

### Lines 1-6 Opening current tax liabilities

The tax creditor reflected in the AWS balance sheet is inter group and not payable to HMRC. For PR19 we showed this in “other creditors” and not as a Corporation Tax creditor. We have done the same again in PR24 and so the amount to show in RR5 is zero

### Lines 7-12 Opening tax loss balance

We have taken the closing current tax losses carried forward at 31 March 2023 as per the statutory accounts and adjusted this for losses forecast to arise or be utilised during the two years to 31 March 2025. We have also removed any tax losses brought forward estimated to relate to non-appointed businesses.

We have allocated the opening balance across the four price controls in line with RCVs.

### Lines 13-18 Opening deferred tax balance

We have taken the closing deferred tax balance at 31 March 2023 as per the statutory accounts and adjusted this for movements forecast to arise during the two years to 31 March 2025. We have assumed that there are no deferred tax movements relating to non-appointed businesses and household retail.

We have allocated the opening balance across the four price controls in line with RCVs.

### Line 19 Current tax liabilities

This is the sum of lines 1-4 i.e. zero

## Capital Allowances Lines 5.20 - 5.43

### Lines 20-25 Proportion of new capital expenditure qualifying for a full deduction

See narrative to lines 50-97

## Lines 26-43 Opening capital allowance pool balances

The opening capital allowance pools reflect the computational position at 31 March 2022 as per our latest submitted tax computation. From this we have deducted an estimate of non-appointed capital additions and then included capital additions in the year ended 31 March 2023 and forecast to arise in the years ended 31 March 2024 and 31 March 2025 as per our latest financial forecasts. We have then deducted any capital allowances forecast to be claimed in the same three years to arrive at our opening pool balance on 1 April 2025.

We have allocated the opening pool balance across the four price controls in line with RCVs.

## Capital Allowance Rates Lines 5.44 - 5.46

We have included the current writing down allowance rates of 18%, 6% and 3%.

## First Year Allowance Rates Lines 5.47 - 5.97

### Lines 47-49 Capital allowance first year allowance rates

We have included the rates included in the FA2023 which are only for the first year of AMP8. After that the rate returns to zero

### Lines 50-97 Allocation of new capital expenditure

We have carried out a tax analysis of forecast capital expenditure during AMP8. This has been carried out individually for each price control and we have analysed the total forecast expenditure for each year between the 18% general pool, the 6% special rate pool, the 3% structures and buildings pool, expenditure not qualifying for capital allowances and expenditure qualifying for a tax allowance based on depreciation.

We have estimated the proportion of spend in each category that qualifies for the higher allowance in 2025-26.

For AMP9 we have assumed that the split between the various capital allowance pools will be the same as for the average for AMP8.

## Other Tax Inputs Lines 5.98 - 5.159

### Lines 98-103 P&L expenditure not allowable as a deduction from taxable trading profits

We have estimated the level of disallowable expenditure each year based upon historical results and have allocated this between four price controls in line with RCV's. We have assumed that prices rise by 2% per annum throughout AMP8 and AMP9.

### Lines 104-109 Other adjustments to taxable profits

A major adjustment on our tax computation is a deduction for amortisation of intangible assets. However, the Ofwat model does not distinguish between tangible and intangible assets and calculates capital allowances on the total capital additions. In the March 2022 tax computation, there is a balance of intangible assets which is expected to increase by March 2025. These intangible assets are not included in the opening capital allowance pools and so it is necessary to include an adjustment for the amortisation on this opening balance of intangibles assets that will be a deduction on the tax computation. We have therefore included the forecast amortisation on this March 2025 balance as it is expected to arise in each year of AMP8 and AMP9. We have split the total in line with RCV's.

### Lines 110-115 Disallowable expenditure - change in general provisions

The only general provision we have in our computation is for bad debts due within one year. Any Increase in provisions will be reflected in the retail price control.

### Lines 116-121 Finance lease depreciation

We have calculated the depreciation charge based on leased assets held on 31 January 2023. To this we have added the depreciation calculated on new leases expected to commence in the remainder of AMP7 and in AMP8. We have also taken into account any rent reviews expected to occur during the remainder of AMP7 and in AMP8. We have allocated the total between the four price controls in line with RCV.

For AMP9 we have used the average depreciation for AMP8.

### Lines 122-127 P&L Expenditure relating to renewals not allowable as a deduction from trading profits

We do not have any profit and loss expenditure relating to renewals not allowable as a deduction from taxable trading profits

### Lines 128-133 Tax cashflow initial balance

We do not have any tax cashflow initial balance

### Line 134 Tax loss allowance - nominal

We expect to claim 50% of the taxable profits as loss relief and therefore have entered a zero tax loss allowance.

### Line 135 Statutory Corporation tax rate

We have used the latest announced Corporation Tax rate of 25% from 1 April 2023.

### Line 136-141 Adjustment to tax payment

We do not make adjustments to tax payments

### Lines 142-147 Charge for DB schemes- residential retail

We have included the retail element of our DB pension payments

### Lines 148-153 Other taxable income - Amortisation on grants and contributions

We do not amortise grants and contributions as they are all credited to the income statement in the year of receipt. There are three different tax treatments for these credits:

1. A proportion are treated as income receipts and taxed in the year of receipt
2. A proportion are treated as capital receipts and deducted from additions to the 6% special rate pool
3. A proportion are adopted assets and are not taxed at all as the debit to fixed assets is treated as ineligible for tax relief

Instead of including the amortisation on grants and contributions we have included the reduction in capital allowances in the 6% special rate pool because of these capital grants and contributions as this is the amount that will increase the taxable profits.

For AMP8 we have used our forecast models but for AMP9 we have assumed that figures increase at the same average rate as in AMP8.

### **Lines 154-159 Other taxable income - grants and contributions taxable on receipt**

As stated above all our grants and contributions are credited to the income statement in the year of receipt. It is only those that are income in nature that are taxed in the year of receipt. We have estimated the proportion of grants and contributions that are taxable on receipt using historic percentages applied to total grants and contributions.

For AMP8 we have used our forecast models but for AMP9 we have assumed that figures increase at the same average rate as in AMP8.

### **Capitalised revenue Lines 5.160 - 5.165**

For AMP8 we have forecast the level of allowable depreciation on deferred revenue each year based on the level of forecast CAPEX and the amount of this CAPEX treated as qualifying for a tax deduction based on depreciation. We have split this between price control based on RCV

For AMP9 we have assumed that figures increase at the same average rate as in AMP8

# RR6 Post financeability adjustments inputs

All adjustment values are sourced from the output of the "PR24 revenue adjustments" feeder model.

# RR7 Residential retail

## Residential Retail - HH Connected Lines 7.8 - 7.13

### Line 7.8: Households connected for water only - unmetered

Data has been derived from recorded information, the projected forecast for customers switching from unmeasured to measured and new build properties. The forecast has been based upon ONS trend projections property totals for the Anglian Water region (ONS 2020 base-lined LAUA trend property projections).

Note that the WRMP24 property forecast has been based upon a more risk averse Local Authority based projection in alignment with Water Resource Planning Guidelines.

Base-year data has been derived from billing data and projected to 2024/25 AMP7 out-turns. The 2025/26 to 2034/35 forecasts have been generated based upon ONS trend information.

- Out-turn - recorded unmeasured water property numbers. Total water property numbers (water account) have been calculated as part of the APR process, based upon internally reconciled 'billing' premise data. This allows the derivation of both measured and unmeasured property totals, for the different account types (water, water and waste, waste).
- Forecast - the total number of unmeasured water properties has been derived using the ONS trend-based Household and Population forecast model, baselined to APR totals. The measured and unmeasured split has been derived, using baseline out-turn data and the meter installation/optant forecasts provided by the metering team, as used in the WRMP24 demand forecast model.

For the forecast period, we expect unmeasured water customers, to decline from a value of 77,686 in 2025/26 to 69,339 in 2034/35, as customers switch from being unmeasured to being measured.

Overall, it is expected that we will see 78,585 additional water customer properties between 2024/25 and 2029/30, and 101,005 additional waste-water customers between 2024/25 and 2034/35.

### Line 7.9: Households connected for sewerage only - unmetered

Base-year data has been derived from billing data and projected to 2024/25 AMP7 out-turns. The 2025/26 to 2034/35 forecasts have been generated based upon ONS trend information.

- Out-turn - recorded unmeasured waste-water property numbers. Total waste-water property numbers (waste-water account) have been calculated as part of the APR process, based upon internally reconciled 'billing' premise data. This allows the derivation of both measured and unmeasured property totals, for the different account types (water, water and waste, waste).
- Forecast - the total number of unmeasured waste-water properties has been derived using the ONS trend-based Household and Population forecast model, baselined to APR totals. The measured and unmeasured split has been derived, using baseline out-turn data and the meter installation/optant forecasts provided by the metering team, as used in the WRMP24 demand forecast model.

For the forecast period, we expect unmeasured waste-water customers, to decline from a value of 207,206 in 2025/26 to 180,979 in 2034/35, as customers switch from being unmeasured to being measured.

### Line 7.10: Households connected for water only - metered

Base-year data has been derived from billing data and projected to 2024/25 AMP7 out-turns. The 2025/26 to 2034/35 forecasts have been generated based upon ONS trend information.

- Out-turn - recorded measured water property numbers. Total water property numbers (waste-water account) have been calculated as part of the APR process, based upon internally reconciled 'billing' premise data. This allows the derivation of both measured and unmeasured property totals, for the different account types (water, water and waste, waste).
- Forecast - the total number of measured water properties has been derived using the ONS trend-based Household and Population forecast model, baselined to APR totals. The measured and unmeasured split has been derived, using baseline out-turn data and the meter installation/optant forecasts provided by the metering team, as used in the WRMP24 demand forecast model.

For the forecast period, we expect measured water customers, to increase from a value of 167,974 in 2025/26 to 188,919 in 2034/35, as customers switch from being unmeasured to being measured, in addition to newly connected properties.

### Line 7.11: Households connected for sewerage only - metered

Base-year data has been derived from billing data and projected to 2024/25 AMP7 out-turns. The 2025/26 to 2034/35 forecasts have been generated based upon ONS trend information.

- Out-turn - recorded measured waste-water property numbers. Total waste-water property numbers (waste-water account) have been calculated as part of the APR process, based upon internally reconciled 'billing' premise data. This allows the derivation of both measured and unmeasured property totals, for the different account types (water, water and waste, waste).
- Forecast - the total number of measured waste-water properties has been derived using the ONS trend-based Household and Population forecast model, baselined to APR totals. The measured and unmeasured split has been derived, using baseline out-turn data and the meter installation/optant forecasts provided by the metering team, as used in the WRMP24 demand forecast model.

For the forecast period, we expect measured waste-water customers, to increase from a value of 673,733 in 2025/26 to 751,285 in 2034/35, as customers switch from being unmeasured to being measured, in addition to newly connected properties.

### **Line 7.12: Households connected for water and sewerage - unmetered**

Base-year data has been derived from billing data and projected to 2024/25 AMP7 out-turns. The 2025/26 to 2034/35 forecasts have been generated based upon ONS trend information.

- Out-turn - recorded unmeasured water and waste-water property numbers. Total water & waste-water property numbers (waste-water account) have been calculated as part of the APR process, based upon internally reconciled 'billing' premise data. This allows the derivation of both measured and unmeasured property totals, for the different account types (water, water and waste, waste).
- Forecast - the total number of unmeasured water and waste-water properties has been derived using the ONS trend-based Household and Population forecast model, baselined to APR totals. The measured and unmeasured split has been derived, using baseline out-turn data and the meter installation/optant forecasts provided by the metering team, as used in the WRMP24 demand forecast model.

For the forecast period, we expect unmeasured water and waste-water customers, to decrease from a value of 185,228 in 2025/26 to 113,152 in 2034/35, as customers switch from being unmeasured to being measured.

### **Line 7.13: Households connected for water and sewerage - metered**

Base-year data has been derived from billing data and projected to 2024/25 AMP7 out-turns. The 2025/26 to 2034/35 forecasts have been generated based upon ONS trend information.

- Out-turn - recorded measured water and waste-water property numbers. Total water and waste-water property numbers (waste-water account) have been calculated as part of the APR process, based upon internally reconciled 'billing' premise data. This allows the derivation of both measured and unmeasured property totals, for the different account types (water, water and waste, waste).
- Forecast - the total number of measured water and waste-water properties has been derived using the ONS trend-based Household and Population forecast model, baselined to APR totals. The measured and unmeasured split has been derived, using baseline out-turn data and the meter installation/optant forecasts provided by the metering team, as used in the WRMP24 demand forecast model.

For the forecast period, we expect measured water and waste-water customers, to increase from a value of 1,733,045 in 2025/26 to 1,926,428 in 2034/35, as customers switch from being unmeasured to being measured, in addition to newly connected properties.

## **Residential Retail - Opening Balances Lines 7.35 - 7.36**

### **Line 7.35 Prior period company residential apportionment**

The prior period company residential apportionment is based on the 2024-25 revenue disaggregated by price controls and customer classes. This follows the same principles detailed in the commentary for lines 38 to 49.

## **Residential Retail - Other Lines 7.37 - 7.58**

### **Line 7.37 Residential net margin for company**

We have used a 1% residential retail net margin in line with the Ofwat Final Methodology.

### **Line 7.38 - 7.49 Measured and unmeasured charges by price control**

The 2023-24 revenue budget by customer class is based on the principles applied in the cost allocation exercise undertaken annually for our tariff setting process and the boundaries between the price controls as defined in RAG 4.11. These are then projected for 2025/26 to 2034/35 on the basis that any changes in these proportions are driven solely by changes in the customer profile as forecast in table SUP1A, their associated demand and the Allowed Revenue by control.

Therefore forecast reduction in unmeasured households due to the metering programme and forecast increases in measured households due to the metering programme and new connections will result in a corresponding change in the proportion of the forecast revenue to be recovered from each customer class.

This is consistent with table RR27.

### **Line 7.56 Interest rate - residential**

Set equal to the “Interest rate on fixed rate debt” in table RR4

# RR8 Business retail

## Business Retail - Charges Lines 8.22 - 8.33

The 2023-24 revenue budget by customer class is based on the principles applied in the cost allocation exercise undertaken annually for our tariff setting process and the boundaries between the price controls as defined in RAG 4.11. These are then projected for 2025/26 to 2034/35 on the basis that any changes in these proportions are driven solely by changes in the customer profile as forecast in table SUP1A, their associated demand and the Allowed Revenue by control.

Therefore forecast changes in unmeasured non-households due to the metering programme and changes in measured non-households due to the metering programme and new connections will result in a corresponding change in the forecast revenue to be recovered from each customer class.

This is consistent with table RR27.

# RR9 Miscellaneous inputs

## Reprofiling lines 9.7 - 9.18

We have not re-profiled revenues. We have used the real wholesale WACC rate as the discount rate input.

## DPC inputs Lines 9.136 - 9.171

The table guidance for table RR9 states that the table should be populated with the forecast total expenditure for eligible DPC schemes, excluding Anglian water's own costs for the delivery.

However, the values feed from RR9 into the PR24 financial model suite for the purpose of calculating revenues and customer bills would need to represent the actual cost to customers of the project. In practice this would constitute the payment of a Tender Revenue Stream (TRS) which AWS would recover from customers in order to pass through to the Competitively Appointed Provider (CAP).

Ofwat clarified and agreed with this approach through its data table Q&A process<sup>1</sup> as below (highlight added):

*The costs to be included should be the forecast total expenditure for eligible DPC schemes as delivered by the competitively appointed provider ("CAP") that the water company is due to incur, i.e. **pay to the CAP, during the period after the asset has been completed and is operational**. The costs should exclude the water company own costs for the delivery of DPC schemes*

Accordingly, the DPC-related lines in table RR9 have been populated with a TRS for the Colchester re-use project, which has been assessed as eligible for DPC. This has been input in row *Total direct procurement from customers - infrastructure cost 1 (BP ref. RR9.136)*, as below:

Table 1 - Colchester re-use tender revenue stream

Year	AMP8					AMP9				
	25-26	26-27	27-28	28-29	29-30	30-31	31-32	32-33	33-34	34-35
Tender Revenue Stream (real) (£m)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	7.198	7.198	7.198

This TRS has been calculated using a Value for Money (VfM) financial model<sup>2</sup>. The model uses Ofwat's standard DPC assumptions for capex and opex efficiencies and financing assumptions<sup>3</sup>.

The VfM model uses the project's costs as an input, calculates the required financing profile and generates a revenue profile sufficient to fund the financing, construction, operation and maintenance of the project over a defined term. The model solves to provide a set level of Equity Internal Rate of Return (EIRR) over the life of the project. The TRS is the value which has been included in table RR9 in real terms - the actual cost to customers would be at least partly indexed to reflect nominal costs. Revenue under Ofwat's standard assumption only commences at the point of asset commissioning to incentivise timely delivery by the Competitively Appointed Provider (CAP).

This TRS reflects an early stage understanding of project costs and the potential efficiencies which can be realised through DPC. The actual TRS that the successful bidder submits as part of the tender process will reflect the allocation of risk, market conditions and financing structure of the CAP.

1 Query reference 342

2 This financial model was developed and used for AWS RAPID Gate 2 assessments and for Middlegate WTW.

3 [Ofwat \(2019\) Anglian Water: Direct Procurement for Customers detailed actions](#); pg. 4-7. Note that the WACC used in the model has been updated to Ofwat's early view PR24 WACC to better reflect current market conditions.

## **Non-price control income - third party services - other non-price control third party services Lines 9.178 - 9.183**

**Other non-price control revenue from third party services principally relates to standpipes. This primarily relates to network plus with a proportion allocated to water resources based on the proportion of the revenue requirement reflected in charges set for each year in AMP7.**

Projections are consistent with recent trends showing no material change in activity.

## **Non-price control income - third party services - Bulk supplies - contract not qualifying for water trading incentives Lines 9.184 - 9.189**

**Wholesale revenue from bulk supplies includes those supplies reflecting historic arrangements for local network top-up to bordering undertakers, and supplies to New Appointments and Variations (NAVs).**

### **Historic agreements**

The historic agreements are either based on cost sharing agreements or standard wholesale tariffs.

The cost sharing agreements are designed to provide an appropriate allocation of operating, capital and financing costs between the parties. The costs are allocated based either on the proportion of the capacity reserved to each party, the volume of water taken (or population equivalent for Wastewater) or on whether assets are separately identified and their use specific to one party or the other. The costs and therefore revenue, are analysed at a price control activity level as defined in RAG 4.11.

The other historic arrangements are based on standard wholesale tariffs and are therefore analysed between price controls as described for business revenue in table RR8. Wholesale tariffs by price control are calculated each year as part of the charge setting process.

All revenue projections are based on a demand profile consistent with current requirements, on a constant price base.

## **New Appointments and Variations to Supply (NAVs)**

The majority of NAV agreements are based on Ofwat's guidance for bulk charges to NAVs as detailed in our NAV Charge Arrangements.

These agreements are charged on a 'wholesale minus' basis reflecting the avoided costs that the incumbent does not incur given a NAV supplies the new development. These costs are driven by the number of dwellings supplied.

The revenue projection is based on the number of NAV developments currently granted in our area and the number of dwellings per development. Where a development has not been fully built-out we have forecast the rate of connected premises based on published housing data and actual build rates observed by NAVs in the region. The consumption per dwelling is based on our average household consumption. The projection is consistent with the year end numbers set out in table DS1e.

The proportion of revenue allocated to Water resources and Bioresources is based on the average wholesale charge in 2022-23, with the respective balance per service allocated to Network Plus.

## **Non-price control income - third party services - Bulk supplies - contract qualifying for water trading incentives Lines 9.190 - 9.195**

We do not have any supplies that qualify under the water trading incentive framework and do not anticipate any change.

## **Price control income - third party services - Rechargeable works Lines 9.196 - 9.201**

Rechargeable works where we are the monopoly supplier and the costs are covered by the wholesale control which includes fluoridation, fire hydrants and meter testing with the majority of this revenue relating to network plus services.

Projections show no material change in activity

## **Non-price control income - principal services Lines 9.202 - 9.207**

Other non-price control revenue from principal services mainly relates to recreation, and is solely allocated to water resources.

Projections are consistent with recent trends showing no material change in activity.

## **Non-price control income - third party services - Bulk supplies - General Lines 9.208 - 9.213**

All bulk supplies are reported in lines 184 to 189.

## **Other price control income - Third party revenue Lines 9.214 - 9.219**

Third party revenue included within the price control relates to non-potable water supplies to non-households. This revenue has been analysed between water resources and network plus on the same basis as described in table RR8.

Projections are consistent with recent trends showing no material change in demand.

## **Other operating income Lines 9.220 - 9.225**

We are not anticipating any other operating income.

## **Base Revenue Lines 9.262 - 9.266**

The base revenue by price control for 2024-25 is consistent with table RR27.

# RR10 Allowed revenue outputs

These are outputs from the completed regulatory model.

# RR11 PAYG and RCV run-off outputs

These are outputs from the completed regulatory model.

# RR12 RCV by control

These are outputs from the completed regulatory model.

# RR13 Annual RCV balances

These are outputs from the completed regulatory model.

# RR14 Bill profile for 2025-30 before inflation

These are outputs from the completed regulatory model.

# RR15 Retail margins 2025-30 (nominal price base)

These are outputs from the completed regulatory model.

# RR16 Financial ratios

## Notional capital structure Lines 16.1 - 16.23

Lines 1 - 12: These are outputs from the completed regulatory model

Line 13: We have targeted a notional company credit rating of BBB+ / Baa1 in line with Ofwat's Final methodology

## Actual capital structure Lines 16.24 - 16.46

### Line 24: Gearing - Actual capital structure

We plan to maintain gearing in AMP8 at 69%.

### Line 26: Adjusted cash interest cover - Actual capital structure

This measures the number of times operating cash flow, after deducting the costs of maintaining our assets or depreciation charge whichever is the greater, covers the total interest cost.

A minimum of 1.5 times is seen in the plan which is in line with maintaining our credit ratings.

### Line 30: Dividend cover - Actual capital structure

Dividends (gross of equity financing) are sized at 4% of equity RCV and covers at least one times interest cover at Osprey Acquisitions Ltd (OAL). However, as shown in RR20, dividends net of equity financing is reduced to maintain a consistent level of gearing.

### Line 31: RCF/Net Debt - Actual capital structure

This is calculated in line with line RR16.28 FFO/Net Debt with the exception of the deduction of dividends from FFO.

### Line 32: RCF/Capex - Actual capital structure

We do not use this metric in assessing financeability but it is an overall measure of a company's ability to finance a capital programme at the scale envisaged given the dividends assumed to be paid out.

### Line 33: Return on capital employed - Actual capital structure

This line is calculated in line with guidance.

### Line 34: Dividend yield - Actual capital structure

Dividend yield gross of equity financing is 4%. Adjustments for non-appointed business reduces this to marginally below 4%. However, as shown in RR20, dividends is further reduced when netted off against equity financing.

### Line 35: RORE - Actual capital structure

The actual capital structure RORE is less than the base return of 4.14% due to higher actual cost of embedded debt than allowed cost of embedded debt and forecast higher proportion of new debt than allowed share of new debt. As the forecast profile of new debt issuances differ in each year of the AMP from the allowed share of new debt, the trajectory of declining RORE is due to this cumulative difference.

### Line 36: Target Credit Rating - Actual capital structure

Our covenants require us to achieve a minimum credit rating from two of the three credit rating agencies for our debt. Each of the three credit rating agencies rate our debt slightly differently.

We have a corporate family rating by just one agency, Moody's, which is A3. This is the target credit rating.

For our debt, the minimum rating required is A3/A-.

### Line 37: Company proposed ratio A - Actual capital structure

Company proposed ratio A is the Ratio of net cash flow minus capital maintenance expenditure to class A debt interest which is a financial covenant as defined in our financing documents. The threshold is 1.0 times. This is calculated by dividing cash generated from operations less capital maintenance by net cash interest paid, with inclusions/exclusions as defined in our financing documents.

Table 2 Company proposed ratio A

£m	2025-26	2026-27	2027-28	2028-29	2029-30
Cash generated from operations less capital maintenance	553	670	736	814	834
Net cash interest paid	224	242	259	290	316
Ratio	2.46	2.77	2.84	2.81	2.64

### Line 38: Company proposed ratio B - Actual capital structure

Company proposed ratio B is the Conformed Post-Maintenance Interest Cover Ratio which is a financial covenant as defined in our financing documents. The threshold is 1.3 times. This is calculated as cash generated from operations less the higher of capital maintenance and regulatory depreciation divided by net cash interest paid, with inclusions/exclusions as defined in our financing documents.

Table 3 Company proposed ratio B

£m	2025-26	2026-27	2027-28	2028-29	2029-30
Cash generated from operations less the higher of capital maintenance and regulatory depreciation	360	416	473	509	537
Net cash interest paid	224	242	259	290	316
Ratio	1.61	1.72	1.83	1.76	1.70

### Line 39: Company proposed ratio C - Actual capital structure

Company proposed ratio C is the Average Post-Maintenance Interest Cover Ratio which is a financial covenant as defined in our financing documents. The threshold is 1.4 times. This is calculated as the average of line 38 company proposed ratio B for the current year and the subsequent two years. The ratio for 2028-29 and 2029-30 is the average of the line 38 company proposed ratio B for 2027-28, 2028-29 and 2029-30.

### Adjustments for actual structure metrics Lines 16.54 - 16.80

#### Lines 54 to 76:

Adjustments of notional structure amounts to actual structure amounts are to incorporate net debt due to the actual gearing level, interest due to actual gearing and debt mix, indexation from actual indexed linked debt proportion and operational performance from non-appointed business.

#### Line 77: Profit after tax

This line aligns with RR18.

#### Line 79: Capex

This line aligns with RR2.

#### Line 80: EBIT less tax charge

This line aligns with RR18

# RR17 Financial metrics by scenario

## Background

The Directors are responsible for ensuring the resilience or viability of the Group's water and water recycling services to meet the needs of its customers in the long term. This means the Group must be able to avoid, manage and recover from disruptions to its operations and finances.

In reviewing its financial resilience, Anglian Water considers the stringent covenant tests required under its securitised structure to provide comfort to our bondholders that our business is financially resilient to the end of the current AMP period and beyond, and to ensure the availability of debt to finance Anglian Water's investment programme. At each regulatory price review and throughout the AMP, the Board satisfies itself that the agreed five-year business plans ensure adequate covenant headroom throughout the AMP period and beyond. This includes extensive downside scenario testing from severe, plausible and reasonable scenarios chosen because they pose the greatest risk to the business. The following scenarios have been used individually and in combination to model the impact on the overall performance of the business, the ability of the business to service its debt and the impact on its credit rating.

In deciding on appropriate downside scenarios and corresponding stress tests, management have considered the required downside scenarios prescribed by Ofwat in Final Methodology (Chapter 8 of Appendix 10 - Aligning Risk and Return). In addition, Management have identified several additional scenarios as set out in the below table and detailed at the end of this section.

### Credit rating

The water industry is required to make significant investments in infrastructure and recover these costs from both current and future customers. Like any other industry, water companies have to finance themselves in competitive capital markets and are price-takers. It is therefore extremely important that business

plans are able to demonstrate they will achieve investment grade credit ratings and be able to maintain these in the event of cost shocks. We have therefore assessed the potential impact of the downside scenarios on both the actual and notional company credit ratings.

## CTA

Anglian Water Services Limited has a single debt platform (sometimes known as a "common terms" or "CTA" debt platform) that has been structured so as to align with, and enhance, the regulatory protections contained in the Water Industry Act 1991 and Anglian Water's Licence (an "Aligned Debt Programme"). Aligned Debt Programmes operate on a single covenant package and shared security and intercreditor arrangement that binds all debt providers.

The CTA introduces two terms, a Trigger Event and an Event of Default. The intention of a Trigger Event is that it is an early warning event designed to reinforce credit worthiness and to protect the Company and its finance creditors from an Event of Default occurring. Whilst it would result in dividend lock-up and prevent the business from raising new debt it is not considered to be a going concern or financial resilience event unlike an Event of Default.

## PR24 Downside scenarios summary

The below table provides a summary of the impact of the PR24 prescribed downside scenarios along with several additional combined scenarios on the actual companies covenants and credit ratings. In addition, we have applied the same downside scenarios to the notional company and highlighted the impact on credit ratings.

The key message shown in the table is that whilst the actual company is able to withstand the impact of these downside scenarios, there is not sufficient financial resilience in the notional company to maintain an investment grade credit rating as required by Ofwat.

Figure 1 Summary of impact of the downside scenarios

	NOTIONAL COMPANY		ACTUAL COMPANY			
	Investment grade credit	Rating outcome	Trigger event	Default event	Investment grade credit	Rating outcome
<b>Stress test scenario</b>						
<b>Base Case</b>						
Business plan submission	Yes	BBB	No	No	YES	A-
<b>Ofwat prescribed scenarios</b>						
A Totex underperformance (10% of totex) over 5 years.	No	BB	No	No	YES	BBB+
B ODI underperformance payment (3% RoRE) in one year	No	BB	YES	No	YES	BBB-
C Inflation 2% below the base case in the business plan in each year of the price review	Yes	BBB-	No	No	YES	A-
D Deflation of -1% for 2 years, followed by a return to the long term inflation target.	Yes	BBB-	No	No	YES	A-
E 10% spike in inflation with a 2% increase in wedge between RPI and CPIH, followed by two years at 5% and a 1% increase in wedge.	Yes	BBB	No	No	YES	A-
F Increase in the level of bad debt (20%) over current bad debt levels.	Yes	BBB	No	No	YES	A-
G Debt refinanced as it matures, with new debt financed at 2% above the forward projections.	Yes	BBB-	No	No	YES	BBB+
H Financial penalty – equivalent to 6% of one year of Appointee turnover	Yes	BBB-	YES	No	YES	BBB
I Combined scenario 1 (10% totex underperformance, ODI penalty 1.5% of RORE year 4 and 5, plus financial penalty equivalent to 1% of revenue in year 4)	No	BB	YES	No	YES	BBB-
J Combined scenario 2 (inflation -2%, reference rate +2%)	Yes	BBB-	YES	No	YES	BBB-
K Combined scenario 3 (RPI and CPIH 1% lower than base case from 2021 to 2025 with 2.5% appointee opex shock in AMP7 with £50m ODI penalty reflected through revenues in year 4)	Yes	BBB-	No	No	YES	BBB+
<b>Anglian RORE scenarios</b>						
L Totex overspend of 18.7% pre-cost sharing - P10	No	BB	YES	No	YES	BBB
M ODI penalty of 1.3% RORE p.a. (£64.3m) - P10	No	BB	No	No	YES	BBB+
N Opex overspend of 16.84% pre-cost sharing - P10	No	BB	YES	No	YES	BBB-
O Capex overspend of 33.15% pre-cost sharing - P10	Yes	BBB-	YES	No	YES	BBB
P Combined A (around 14% pre-cost sharing totex overspend, 20.5% retail overspend, 1.1% RoRE penalty, all years) - P10	No	BB-	YES	No	YES	BBB-
Q Combined B (9.87% opex / 19.4% capex pre-cost sharing overspend, 20.5% retail overspend, 1.1% RoRE penalty, all years) - P10	No	BB	YES	No	YES	BBB-

### Additional Anglian RORE scenarios

The Board is required to “provide sufficient and convincing evidence that the overall plan provides an appropriate balance of risk and return.” The overall balance of risk and return was a key feature at PR19 and was central to the CMA’s

redetermination: it considered Ofwat’s PR19 FD to have had an asymmetric downside risk, which the CMA referenced as part of its decision to aim-up on the cost of capital.

As part of producing our PR24 plan we conducted a risk and return analysis. This focussed on the assessment of likely upside and downside risks relating to the key regulatory building blocks (specifically Totex, ODIs, Financing, retail costs and customer experience measures). The risk range of these was measured between a P90 (upside) and P10 (downside) and derive a central P50 (average) position. Further details can be found in our Risk and Return chapter.

The risk assessment assesses both mitigated and unmitigated RORE ranges for the actual and notional company. The mitigated actual risk range has then been translated into downside scenarios for financial resilience testing of the actual company. The approach to translating RoRE ranges into downside scenarios was as follows:

- The RoRE ranges reflect whole-AMP estimates of downside exposure. The RoRE ranges for each risk are translated into £m impacts per annum across AMP8, and are split into relevant input categories (e.g. Totex is split into opex/capex) to model downside scenarios
- In addition, combination scenarios are developed for downside scenario testing which assume multiple risks crystallise at the same time. These scenarios are developed based on covariance and correlation across risk categories.

The additional scenarios included in the table above were therefore:

- Totex overspend of 18.7% pre-cost sharing - P10
- ODI penalty of 1.3% RoRE p.a. - P10
- Opex overspend of 16.84% pre-cost sharing p.a.) - P10
- Capex overspend of 33.15% pre-cost sharing) - P10
- Combined A (around 14% pre-cost-sharing totex overspend, 20.5% retail overspend, 1.1% RoRE ODI penalty, all years) - P10
- Combined B (9.87% opex / 19.4% capex pre-cost sharing overspend, 20.5% retail overspend, 1.1% RoRE ODI penalty, all years) - P10

### Ratios used for assessing the impact of the downside scenarios:

As described previously the Directors consider the impact on our credit ratings and ability to raise finances as well our CTA covenants when assessing financial resilience. Therefore, in addition to the metrics prescribed by Ofwat we have also included a number of “company proposed financial ratios” which align to those in our CTA and those used by rating agencies. The metrics are described below:

**Gearing:** This ratio is a CTA covenant with 95% being the default threshold and 75% a trigger event. This is also used by Fitch Ratings for credit rating assessment with 82% is threshold for a rating downgrade below investment rating. (We note that Fitch considers 3 ratios, Gearing, Cash PMICR and Nominal PMICR, with two ratios falling below the threshold triggering a downgrade).

**Interest Cover:** This ratio is a CTA covenant with 1.6x being a default.

**Adjusted cash interest cover:** This ratio is used by credit rating agency Moody’s and 1.1x is a threshold for a rating downgrade below investment rating.

**FFO / Net Debt:** This ratio is a prescribed ratio by Ofwat. The table shows percentage figure for this ratio.

**FFO / Net Debt (alternative calculation):** This ratio is used by credit rating agency S&P and 0.04x is a threshold for a rating downgrade below investment rating. The table shows percentage figure for this ratio.

**Company proposed financial ratio A - Ratio of net cash flow minus capital maintenance Expenditure to class A debt interest:** This ratio is a CTA covenant and a figure below 1.0x resulting in an event of default.

**Company proposed financial ratio B - Confirmed PMICR:** This ratio is a CTA covenant with below 1.3x resulting in a trigger event.

**Company proposed financial ratio C - Average PMICR:** This ratio is a CTA covenant with below 1.4x resulting in a trigger event.

**Company proposed financial ratio D - Fitch Cash PMICR:** This ratio is used by credit rating agency Fitch Ratings and 1.15x is a threshold for a rating downgrade below investment rating. (We note that Fitch considers 3 ratios, Gearing, Cash PMICR and Nominal PMICR, with two ratios falling below the threshold triggering a downgrade).

**Company proposed financial ratio E - Fitch Nominal PMICR:** This ratio is used by credit rating agency Fitch Ratings and 1.4x is a threshold for a rating downgrade below investment rating. (We note that Fitch considers 3 ratios, Gearing, Cash PMICR and Nominal PMICR, with two ratios falling below the threshold triggering a downgrade).

## Scenarios

### Prescribed Scenarios

**Scenario A** - This test is applied for each year of the AMP assuming a 10% underperformance of the Totex. The test indicates the company still has significant headroom throughout the AMP under this downside scenario. Minimum headroom to a downgrade to below investment grade is observed in year 1 of the AMP with £110m on Moody's adjusted cash PMICR. The company is expected to be rated at BBB+ under this scenario while the stretch needed to fall below investment grade is 28.6% underperformance of the Totex.

**Scenario B** - An ODI penalty payment of 3% RoRE is applied to year 2 of the AMP. The company is tested towards an ODI penalty payment of 3% of RoRE in this scenario and expected to keep the investment grade rating of BBB- from at least two rating agencies. The minimum headroom to be downgraded from investment grade status is observed in year 2 of the AMP with £12.3m in Moody's adjusted cash interest cover. The headroom allows the company to extend the ODI penalty by 7.4% of the applied level (3.2% RoRE) to keep the investment grade rating.

**Scenario C** - Inflation assumption of 2% below the base case is applied for each year of the AMP. This test indicates that the company can keep its current rating of A- under this downside scenario. Minimum headroom to a downgrade from the investment grade is observed in year 5 of the AMP with £133.7m on Moody's adjusted cash interest cover. The company is expected to keep an investment grade rating up to an interest rate assumption of 12.2% below base case.

**Scenario D** - Deflation of -1% for first two years of the AMP, followed by a gradual return to the long term inflation target in the last three years of the AMP applied to the AMP. The actual company can keep its A- rating under this downside scenario. The minimum headroom to be downgraded from investment grade is observed in year 5 of the AMP with £126.6m in Moody's adjusted cash interest cover. The threshold for a downgrade below investment grade is 7.4% of deflation in first two years of the AMP.

**Scenario E** - 10% spike in inflation with a 2% increase in wedge between RPI and CPIH, followed by two years at 5% inflation and a 1% increase in wedge is applied to AMP8. The company can keep its A- rating under a scenario with a 10% of inflation in year 1 of the AMP. The minimum headroom for a downgrade to below investment grade is seen in year 1 with 162m in cash PMICR of Fitch Ratings. The stretch to below investment grade is reached at -20.8% of deflation.

**Scenario F** - Increase in the level of bad debt (20%) over current bad debt levels applied in years 2 and 3. The actual company metrics indicates the company can keep A- rating under this downside scenario. Minimum headroom for a downgrade below investment grade is observed in year 1 of the AMP for Moody's adjusted cash interest cover. The stretch needed to reach the threshold for a downgrade is 518.5% of the current bad debt level.

**Scenario G** - Debt refinanced as it matures, with new debt financed at 2% above the forward projections of interest rates in all years of the AMP. This downside scenario which tests the effect of higher cost of debt indicates a BBB+ rating for the actual company with sizable headroom. The lowest headroom to below investment grade is observed in year 5 with £98.5m in Moody's adjusted cash interest cover. The threshold to downgrade below investment grade is reached only under a stretch above 3.6% above forward interest rate projections.

**Scenario H** - Financial penalty - equivalent to 6% of one year of Appointee turnover is applied in year 2 of the AMP. The actual company can deliver BBB rating before mitigations under this scenario. The lowest headroom to a below investment grade rating is observed in year 2 of the AMP with £58.7m in Moody's adjusted cash interest cover. The stretched needed to reach below investment grade threshold is a financial penalty of 8.8% of the appointed turnover.

**Scenario I** - 10% Totex underperformance in all years, ODI penalty of 1.5% RoRE on years 4 and 5 of the AMP and a financial penalty of 1% of revenue in year 4 of the AMP is applied as combined scenario 1. The actual company could still deliver a BBB- rating under this combined scenario. The minimum headroom to a rating downgrade below investment grade is observed in year 4 of the AMP with £24.5m in Moody's adjusted cash interest cover. The stretch needed to reach threshold below investment grade rating is 3.9% of the downside scenario.

**Scenario J** - Inflation 2% below the base case in all years and refinancing of the debt at 2% above forward projections in all years is applied as combined scenario 2. The actual company can deliver BBB- rating under this combined scenario. Minimum headroom to the below investment grade threshold is observed in year 5 in Moody's adjusted cash interest cover with £29.9m. The stretch required to reach limit is 13% of the downside scenario.

**Scenario K** - RPI and CPIH 1% lower than base case from in all years of AMP, 2.5% appointee opex shock in all years and £50m ODI penalty in payment in year 4 is applied as the combined scenario 3. The rating of the company is expected to be BBB+ under this combined downside scenario. Minimum headroom to a rating downgrade below investment grade is observed in year 4 of the AMP in Moody's adjusted cash interest cover with £60.9m. The stretch required to reach limit is 74% of the downside scenario.

## Additional Scenarios

**Scenario L** - Totex underperformance of 18.7% is applied during the AMP. This downside scenario results in a credit rating of BBB for the actual company. The lowest headroom to the below investment grade rating is £69.1m in year 1 in Moody's adjusted cash interest cover. The stretch required to reach the limit is 28.6% of Totex underperformance for this scenario.

**Scenario M** - ODI penalty of 1.3% of RoRE is applied on Years 3, 4 and 5 of the AMP. The ODI penalty scenario results in a credit rating of BBB+ for the actual company. The tightest headroom to below investment grade rating is observed as £113.5m in year 5 in Moody's adjusted cash interest cover. The stretch needed to reach the limit is ODI penalty of 2.7% of RoRE.

**Scenario N** - Opex underperformance of 16.84% (pre-cost sharing) is applied during the AMP. The scenario results in a credit rating of BBB- for the actual company. The tightest headroom to a rating downgrade below investment grade is observed in year 1 with £14.7m for Moody's adjusted cash interest cover. The stretch needed to reach the limit is 18.5% of opex.

**Scenario O** - Capex underperformance of 33.15% (pre-cost sharing) is applied during the AMP. The scenario results in a credit rating of BBB for the actual company. The tightest headroom to a rating downgrade below investment grade is observed in year 1 with £157.7m for Moody's adjusted cash interest cover. The stretch needed to reach the limit is 78% of capex.

**Scenario P** - Totex overspend of 14% (pre-cost sharing), retail overspend of 20.5% and ODI penalty of 1.1% RoRE is applied to all years as additional combined scenario A. The scenario results in a credit rating of BBB- for the actual company. The tightest headroom to a rating downgrade below investment grade is observed in year 5 with £27.2m for Moody's adjusted cash interest cover. The stretch needed to reach the limit is 8.3%.

**Scenario Q** - Opex overspend of 9.87% (pre-cost sharing), capex overspend of 19.4% (pre-cost sharing), retail overspend of 20.5% and ODI penalty of 1.1% RoRE is applied to all years as additional combined scenario B. The scenario results in a credit rating of BBB- for the actual company. The tightest headroom to a rating downgrade below investment grade is observed in year 5 with £8.4m for Moody's adjusted cash interest cover. The stretch needed to reach the limit is 4.3%.

# RR18 Income statement - actual structure

## Appointed Lines 18.1 - 18.15

This table has been completed based on the actual company structure on a nominal basis. The AMP8 values are consistent with the base case, against which stress testing to support the Board's Assurance on financial resilience has been applied.

### Line 1: Revenue

Revenue is populated from the Ofwat PR24 financial model, adjusted for the post-fiability true-ups.

### Line 2: Opex

The opex line contains both operating expenditure and depreciation/amortisation and is populated from the Ofwat PR24 model. The level of annual expenditure is higher than that seen within AMP7. More detailed commentary can be seen within the CW1, CWW1 and RET1 tables.

### Line 3: Operating income

This line is nil on the basis that we are not forecasting any significant profit or losses on fixed asset disposals in the period, nor any exceptional items.

### Line 5: Other income

Our stress testing was completed on a net G&C basis in line with how the Ofwat financial model accounts for G&C's, therefore we have included nil within this line for AMP8 to reflect this. The figures within the AMP7 columns represent our adopted assets, diversions and other G&C income.

### Line 6 and 7: Interest income and expense

Interest income reflects the forecast interest received on cash deposits. The interest expense relates to the forecast interest payable on our embedded debt and the forecast interest payable on new debt issued in line with the rates assumed by Ofwat.

### Line 10: Fair value gains/(losses) on financial instruments

Our regulatory financial model does not forecast the volatile non-cash fair value movements of derivative financial instruments, and therefore we have assumed no movements in the plan. This is consistent with showing the underlying economic performance of the business.

### Line 12: UK corporation tax

The corporation tax charge has been calculated using the Ofwat financial model.

### Line 13: Deferred tax

The deferred tax charge has been calculated using the Ofwat financial model. We do not expect any material timing difference between those forecast in the notional and actual company structures.

### Line 15: Dividends

Dividends have been calculated at 4% of equity RCV, adjusted for non-appointed profits, in line with the assumption that growth in RCV will be funded through equity injection.

# RR19 Statement of financial position - actual structure

This table has been completed based on the actual company structure on a nominal basis. The AMP8 values are consistent with the base case, against which stress testing to support the Board's Assurance on financial resilience has been applied.

## Lines 5, 10, 16 and 23: Financial instruments

These lines deviate from the comparative lines presented within the APR. We have taken the approach of adjusting these balances through reserves to align with the inputs for the Ofwat financial model where these are not required. These lines therefore remain nil for the remainder of AMP7 and all of AMP8.

## Line 6: Retirement benefit assets

As per the line guidance, the net position has been included within this line. Other than the three remaining deficit payments, we have not forecast any future pension movements. These remaining payments have the impact of increasing the net asset position.

## Line 9: Trade and other receivables

Trade receivables are primarily driven by forecast debtor days and income accrual rates.

Trade receivable days are assumed to be consistent with those reported in the current AMP, and as such these are consistent across the period.

For measured income accrual rates we have used our internal forecasts for the remainder of AMP7 and then applied these rates over AMP8 as populated within RR7. We have assumed there will be no significant change to billing cycles over AMP8.

Other debtors includes prepayments related to Opex items, such as rates, which typically do not fluctuate significantly from one year to the next, therefore we have assumed they remain flat in real terms as populated in RR9.

## Line 11: Cash and cash equivalents

Our forecast cash position is at a level which meets our covenant requirements and provides sufficient liquidity to meet obligations as they fall due.

## Line 13: Trade and other payables

Trade payables are primarily driven by forecast creditor days as populated in RR9.

Trade creditor days are assumed to be consistent with those reported in the current AMP. We have no evidence to suggest this would vary by price control and therefore no differentiation has been made. Our normal payment terms are net monthly so on average suppliers are paid 45 days after we receive the invoice. The calculation includes payroll and other costs which has the effect of reducing the overall creditor days balance.

We have reallocated the current tax liability, disclosed within the APR, within this line and have also included the forecast tax liability within here. This liability reflects amounts owed to other group companies, where the regulated company has disclaimed capital allowances for the benefit of these other companies. There is an agreement that the regulated company does not have to pay the inter-group tax liability until it receives the benefit of the disclaimed capital allowances. No amounts are owed to HMRC. We have therefore included this liability within wholesale other payables.

## Line 14: Capex creditor

The capex creditor is populated from the Ofwat PR24 financial model and is based on forecast capex creditor days as populated in RR9. The capex creditor includes accruals which is evidenced by the increased payment days when compared to trade creditor days. The payment profile adopted results in a consistent year-end creditor balance.

## Lines 15 and 22: Borrowings

These lines deviate from the comparative lines presented within the APR. We have taken the approach of adjusting these balances through reserves to align with the inputs for the Ofwat financial model where these balances are consistent with those reported in 1E of the APR. New debt issuances can be seen within RR24 and associated commentary.

# RR20 Statement of cashflows - actual structure

This table has been completed based on the actual company structure on a nominal basis. The AMP8 values are consistent with the base case against which stress testing to support the Board's Assurance on financial resilience has been applied.

## Line 2: Other income

Our stress testing was completed on a net G&C basis, therefore we have included nil within this line for AMP8 to reflect this. The figures within the AMP7 columns represent the cash elements of our G&C income. As per the APR, the formula has been adjusted to not include adopted assets, which go through the other income line, as these are non-cash in nature.

## Line 5: Changes in working capital

As per the commentary for RR19, trade and other receivables and trade and other payables have been primarily driven by forecast debtor days and income accrual rates and creditor days. These have been assumed to be consistent with those reported in the current AMP.

## Line 6: Pension contributions

In line with the pension deficit plan, the final two payments occur in the first two years of AMP8.

## Line 10: Net interest paid

Interest income reflects the forecast interest received on cash deposits. The interest expense relates to the forecast interest paid on our embedded debt and the forecast interest paid on new debt issued in line with the rates assumed by Ofwat.

## Line 13: Capital expenditure

Capital expenditure has been aligned with the forecast expenditure within the plan with the difference being as a result of the movement in the capital creditor. As per the commentary to RR19, the payment profile adopted results in a consistent year-end creditor balance.

## Line 16: Other

Within the APR the other line includes the movement on the short-term deposits with a tenor of over 3 months. As the cash balance forecasted for PR24 does not differentiate between short-term deposits, this line has been set as zero for the period presented. Our actual reported figures will include movements in short term deposits as we invest money to increase efficiency.

## Line 19: Equity dividends paid

Dividends have been calculated at 4% of equity RCV, adjusted for non-appointed profits, in line with the assumption that growth in RCV will be funded through equity injection.

## Line 20: Net loans received

The net loans received are at a level to finance the forecasted capital program, for additional detail, please refer to the commentary for RR24.

## Line 21: Cash inflow from equity financing

Within AMP8, it is expected that we will receive equity injections from our owners, thus helping to maintain the level of gearing. We are currently assessing the mechanisms to deliver these equity injections.

# RR21 Net debt analysis (appointed activities)

## Interest rate risk profile Lines 21.1 - 21.6

### Line 1: Borrowings

Borrowings are shown as principal plus indexation to 31 March 2023. Accrued interest and fair value adjustments are excluded, and so the numbers shown are different to our statutory accounts which are prepared on an IFRS basis. A reconciliation of gross debt calculated on regulatory and statutory accounts basis is shown below.

Table 4 Reconciliation of gross debt calculated on regulatory and statutory accounts

	Gross Debt £m
Borrowings (per regulatory definition) <sup>a</sup>	7,228.6
Fair Value IFRS adjustments <sup>b</sup>	-63.3
Deduct accreted indexation on swaps <sup>c</sup>	-340.0
Adjust issue costs <sup>d</sup>	-14.1
Non-current and Current Debt as per RR19	6,811.2
Debt interest accrual <sup>e</sup>	69.8
IFRS debt (per statutory accounts)	6,881.0

a Includes £27.1m of leases, in addition to £8.9m defined under the CTA

b This represents the IFRS fair value accounting adjustment to applicable debt and derivatives due to spot foreign exchange and fair value hedge adjustments

c Strip out accreted indexation of index-linked derivatives included in the regulatory definition but classified as derivatives under IFRS

d Directly attributable debt issue costs added to reflect IFRS treatment but excluded from the regulatory definition

e Under the guidance, debt is shown excluding accrued interest. Under IFRS, debt is shown including accrued interest

### Lines 21.4 to 21.5: Cash and Short term deposits

Cash and short-term deposits are split as per the guidance. This differs from the statutory accounting treatment in that all money market deposits are shown as short-term deposits here, whereas in the statutory accounts these are split based on their original term to maturity with those with an initial term of three months or less classified as cash and cash equivalents.

## Gearing Lines 21.7 - 21.8

### Line 21.8: Adjusted gearing

The adjusted gearing shown is our 'Senior RAR' ratio as at 31 March 2023, representing net debt divided by year-end RCV. The RCV (£10,019.8 million) used is derived from our calculation which reflects RPI indexation on the RPI linked part of RCV. This differs from Ofwat's published number. The net debt (£6,572.2 million) used excludes leases which have not acceded to the CTA and is in line with the net debt provided to investors as part of the annual covenant compliance process.

## Interest Lines 21.9 - 21.10

Amounts are obtained from RR22. The full year equivalent nominal interest cost is obtained from the nominal interest cost (full year equivalent) column. The full year equivalent cash interest payment is obtained from the cash interest cost (full year equivalent) column. The difference between nominal interest cost and cash interest cost is due to the exclusion of inflation indexation in the cash interest cost.

## Indicative interest rates Lines 21.11 - 21.12

The difference between indicative weighted average nominal interest rate and indicative weighted average cash interest rate is due to the exclusion of inflation indexation in the cash interest rate.

## Time to maturity Line 21.13

### Line 13: Weighted average years to maturity

Where debt instrument is associated with an interest rate hedge with a different maturity date to the underlying debt, the maturity is based on the debt instrument. Therefore, the difference between weighted average years to maturity between RR21 and RR22 is due to the inclusion of derivative accretion in RR22 which is not included in RR21. Where debt instruments have amortising repayments, each repayment is treated separately for calculating the weighted average years to maturity.

# RR22 Analysis of debt

## Assumptions:

The instrument name is the statutory financial statement name for bonds, loans, private placements and facilities. The naming of derivatives is based on our internal references.

Instruments with designated cross currency interest rate swaps have been shown on a post-swap basis.

The principal for pay legs are presented as positive and the principal for receive legs are presented as negative.

## Fixed rate instruments Lines 22.1 - 22.201

Instruments consist of bonds, loans, private placements and derivative legs which do not reference a variable rate.

## Floating rate instruments Lines 22.202 - 22.402

### Lines 202 to 402: Floating rate instruments

For floating rate instruments, the SONIA rate as at 31 March 2023 (4.1777%) has been used as the reference rate.

## RPI linked instruments Lines 22.403 - 22.603

Instruments consist of bonds, loans, private placements and derivative legs which reference a RPI rate.

## CPI linked instruments Lines 22.604 - 22.804

Instruments consist of bonds, loans, private placements and derivative legs which reference a CPI or CPIH rate.

## Inflation Assumptions Lines 22.806-22.807

### Lines 806 to 807: Inflation assumptions

For RPI linked instruments, the March 2023 RPI (13.5%) has been used as the reference rate. For CPI linked instruments, the March 2023 CPI (10.1%) has been used as the reference rate.

# RR23 Financial derivatives

The nominal value is the face value of the financial instruments. These instruments are marked to market at the end of each reporting period and reported in the balance sheet at their fair value.

## Assumptions:

For floating rate derivatives, the SONIA rate as at 31 March 2023 (4.1777%) has been used as the reference rate. For RPI linked derivatives, the March 2023 RPI (13.5%) has been used as the reference rate. For CPI linked derivatives, the March 2023 CPI (10.1%) has been used as the reference rate.

We hold some derivative financial instruments which contain more than two legs (i.e. multiple pay and receive legs). In legal terms, these form a single contract but these have been split (where applicable) to reflect the relevant risks implied on an individual leg basis.

The Mark to Market position is the full fair value of the positions with the Total accretion at 31 March column representing the accretion component of this full amount.

Out-of-the-money (liability) positions are presented as positive and in-the-money (asset) positions are presented as negative.

## Interest rate swap (sterling) Lines 23.1 - 23.8

### Lines 23.1 to 23.7: Interest rate swap (sterling)

We do not have interest rate swaps with floating from index linked exposure, fixed from index-linked exposure and index-linked to index-linked exposure.

## Foreign Exchange Lines 23.9 - 23.13

### Lines 23.9 to 23.12: Foreign exchange

We do not have any cross currency swaps.

## Currency interest rate Lines 23.14 - 23.18

### Lines 23.14 to 23.17: Currency interest rate

We do not have cross currency interest rate swaps with EUR exposure. The cross currency interest rate swap in 'Other' has exposure to CAD.

## Forward currency contracts Lines 23.19 - 23.26

### Lines 23.19 to 23.25: Forward currency contracts

We do not have any forward currency contracts.

## Other financial derivatives Line 23.27

### Line 23.27: Other financial derivatives

Other financial derivatives consists of power hedges and fixed to fixed interest rate swaps.

# RR24 Debt balances and interest costs

## Debt balances Lines 24.1 - 24.14

### Line 6: Floating rate debt issued

The forecast floating rate debt issuance in 2024-25 is a temporary revolving credit facility drawdown and is repaid at the beginning of 2025-26.

Lines 11 to 12: RPI index linked debt repaid and CPI(H) index linked debt repaid

The RPI and CPI(H) wedge is a significant risk to the company and so RPI exposure is taken down to a manageable level.

We have forecasted an index linked swap which transitions £2,100m of RPI linked debt to CPI(H) in 2024-25.

There are no cash flows at inception date for this transition.

### Line 13: Indexation of index-linked loans (RPI linked)

The assumed indexation rate of RPI linked debt is as shown in PD01.27.

### Line 14: Indexation of index-linked loans (CPI(H) linked)

The assumed indexation rate of RPI linked debt is as shown in PD01.28.

## Interest rates and financing costs Lines 24.15 - 24.30

### Line 16: Interest rate for new fixed rate debt

We have assumed 0% in 2024-25 as we are not forecasting to raise new fixed rate debt in 2024-25.

The interest rates for the new fixed rate debt shown are the rates applied to new fixed rate debt in each respective year only and represent Ofwat's 5.34% cost of new debt.

### Line 18: Interest rate for new RPI index-linked debt

We are only planning on raising CPI(H) index-linked debt.

### Line 20: Interest rate for new CPI(H) index-linked debt

We have assumed 0% in 2024-25 as we are not forecasting to raise new CPI(H) index-linked debt in 2024-25.

The interest rates for the new CPI(H) index-linked debt shown are the rates applied to new debt in each respective year only. The rates are Ofwat's 5.34% cost of new debt on a real CPI(H) basis.

### Line 22: Interest rate for new floating rate debt

The interest rates for the new floating rate debt shown are the rates applied to new floating rate debt in each respective year only and represent Ofwat's 5.34% cost of new debt.

### Line 25: Floating rate debt interest paid

Floating rate debt interest paid is the forecast cash interest due on floating rate debt in the respective year.

### Line 27: Interest receivable (other)

This is nil as all forecast interest income arise from short term deposits on cash and cash equivalents which is achieved at the RR24.26 interest rate.

### Line 28: Bank overdraft interest rate

Bank overdraft interest rates are based on forecast SONIA rates plus 1%.

### Line 29: Residential retail working capital financing cost rate

As the retail business has no RCV to borrow against the retail working capital can only be financed by equity. We have therefore assumed this is the nominal cost of equity.

### Line 30: Business retail working capital financing cost rate

We have assumed 0% as we have exited the business retail market.

## Interest for financial metrics Lines 24.33 - 24.46

### Line 45: Other interest cost

Other interest cost are fees on new debt issuances. We have assumed 1% of the debt principal.

### Line 46: Total interest cost

The calculations assume new debt raised occurs half way through the year and debt repayments occur at the end of the year.

This significantly overstates interest cost where repayments actually occur in the early parts of the year.

# RR25 Weighted average cost of capital for the Appointee

## Appointee WACC Lines 25.1 - 25.21

This table is populated consistently with Table 2.1, Appendix 11 of the Final Methodology by applying the "central view" values or the mid-point of the "PR24 range" as applicable. The unlevered beta parameter (RR25.8) is set to the point estimate of 0.2775 indicated by Ofwat in its response to query 468.

# RR26 Weighted average cost of capital by wholesale price control

## Weighted average cost of capital by wholesale price control Lines 26.1 - 26.17

As allowed return on capital is the same across all controls, the parameters used in table RR26 are consistent with RR25. The unlevered beta parameter (RR26.8) is set to 0.2676, and calibrated to achieve the target wholesale cost of equity of 4.01% in RR26.11, as indicated by Ofwat in its response to query 469.

# RR27 Revenue analysis

## Wholesale charge - water Lines 27.1 - 27.4

### Lines 27.1 - 27.2 Wholesale charge - unmeasured and measured

The 2022-23 figures are as reported in table 2I of the Annual Performance Report published on 13 July 2023.

Having established the 2023-24 revenue budget by customer class (reflected in the charges for the charging year), we are able to project the allocation between customers classes up until 2029/30 on the basis that any changes in these proportions are driven solely by changes in the customer profile as forecast in table SUP1A, their associated demand and the overall Allowed Revenue by Price Control.

Therefore changes in unmeasured customers due to the metering programme and changes in measured customers due to the metering programme and new connections, plus changes in average demand by class, result in a corresponding change in the revenue to be recovered from each customer class.

### Line 27.3 Wholesale charge - third party

The 2022-23 figures are as reported in table 2I of the Annual Performance Report published on 13 July 2023.

Third party revenue includes non-potable water and rechargeable works.

#### Non-potable water

See commentary for lines 1 and 2.

#### Rechargeable works

See commentary for table RR9 lines 196 to 197.

## Wholesale charge - wastewater Lines 27.5 - 27.12

### Lines 27.5 - 27.10 Wholesale charge - unmeasured and measured

The 2022-23 figures are as reported in table 2I of the Annual Performance Report published on 13 July 2023.

Having established the 2023-24 revenue budget by customer class and service (reflected in the charges for the charging year), we are able to project the allocation between customers classes up until 2029/30 on the basis that any changes in these proportions are driven solely by changes in the customer profile as forecast in table SUP1A, their associated demand and the overall Allowed Revenue by Price Control.

Therefore changes in unmeasured customers due to the metering programme and changes in measured customers due to the metering programme and new connections, plus changes in average demand by class, result in a corresponding change in the revenue to be recovered from each customer class.

### Line 27.11 Wholesale charge - third party

Third party revenue relates to rechargeable works.

See commentary for table RR9 lines 198 to 199.

## Wholesale charge - Additional Control 1 Lines 27.13 - 27.16

The Additional Control relates to the development costs for the reservoir construction, allocated in line with water resources revenue recovery. The assumptions regarding the treatment of these costs is set out in appendix ANH33

## Retail revenue Lines 27.22 - 27.25

### Lines 27.22 - 27.23 Retail revenue

The retail revenue by customer class is based on the overall allowed retail revenue, the number of customers by class and a differential between unmeasured and measured services reflecting the additional retail costs associated with metering.

The reducing unmeasured revenue trend reflects the ongoing metering programme, with a corresponding increase in measured revenue from the metering programme and new connections.

## **Third party revenue - non-price control Lines 27.26 - 27.30**

### **Lines 27.26 -27.27 Bulk supplies revenue**

See commentary for table RR9 lines 184 to 189.

### **Principal services - non-price control Line 27.31**

See commentary for table RR9 lines 202 to 207.

# RR27a Revenue analysis

## Residential: business split Lines 27a.1 - 27a.4

### Line 27a.1 Wholesale water third party revenue

The revenue analysis split is the average over 2025 to 2030 of Third Party Revenue split between Residential and Business. This is calculated directly from table RR27.

### Line 27a.2 Wholesale wastewater third party revenue

The revenue analysis split is the average over 2025 to 2030 of Third Party Revenue split between Residential and Business. This is calculated directly from table RR27.

## Wastewater charges split Lines 27a.5 - 27a.7

The revenue analysis split is the average over 2025 to 2030 of Wastewater income by service type split between Unmeasured and Measured customers. These are calculated directly from table RR27.

# RR28 Historic cost analysis of tangible fixed assets

## Cost Lines 28.1 - 28.6

Historic cost analysis is based on the balances reported by price control element in the company's Annual Performance Return as of 31 March 2023. Disposals from 2023-24 onwards are estimated based on an average of the prior three year actual asset disposal values with an increasing annual factor of 2.5% (this is intended to represent the relative historical increase in asset costs over the previous few decades of the assets to be disposed). Additions from 2023-24 onwards for all price control elements (with the exception of Residential Retail) for the remainder of AMP7 are 90% of the expected capital expenditure according to the most recent business forecasts and for AMP8 they are 90% of the capital expenditure planned in PR24 table lines CW1.13 and CWW1.13. Capital expenditure on tangible fixed assets is expected to be 90% of total capital expenditure based upon the historical actual proportion of each. Residential Retail additions from 2023-24 onwards are a direct subset of the workings for PR24 line RET1a.23 relating to capital expenditure on tangible assets.

## Depreciation Lines 28.7 - 28.11

Historic cost analysis depreciation is based on the balances reported by price control element in the company's Annual Performance Return as of 31 March 2023. Disposals from 2023-24 onwards are estimated based on an average of the prior three year actual asset disposal values with an increasing annual factor of 2.5% (this is intended to represent the relative historical increase in asset costs over the previous few decades of the assets to be disposed). As all asset disposals are expected to be fully depreciated assets the depreciation on disposals matches the cost disposals in every instance. The depreciation charge for each year from 2023-24 onwards is calculated using the average lives table RR29. The cost brought forwards from the prior year for each price control element is divided by the average useful life of assets associated with each price control element and year.

## Depreciation charge for year Lines 28.14 - 28.16

Historic cost analysis depreciation charge for year is based on the balances reported by price control element in the company's Annual Performance Return as of 31 March 2023. From 2023-24 onwards all depreciation charged is expected to be for Principal services only.

# RR29 Asset lives

## Average asset lives for all fixed assets ~ legacy assets plus new additions Lines 29.1 - 29.9

Average asset life values have been calculated for each price control business area category based upon the historical average actual lives of those categories as per the values stated in the 2022-23 Apr table 2D fixed asset balances. The calculation is made by dividing the depreciation charge for the year into the carried forward asset cost, the resulting number being the weighted average actual depreciation life of the assets in place as of 31 March 2023 by price control area in years. This average life is expected to be applicable to future asset additions on the understanding that the useful lives of these additions will be similar on average to that of the current list of fixed assets. The only exception to this method is in the Residential Retail category which is different to the other price control areas in that there is a large proportion of fully depreciated assets within the asset cost balance as of 31 March 2023 which is not expected to be representative of future tangible fixed asset additions in this area. As the forecast tangible fixed asset additions for Residential Retail entirely relates to meter reader vans the accounting policy useful life period of 10 years is appropriate for every year in line RR29.7.

The total average asset lives of all tangible fixed assets including additions on line RR29.9 is calculated by dividing the total depreciation charge for the year for all tangible assets into the total carried forward asset cost for all tangible assets in each year.

# RR30 RoRE Analysis

Anglian Water has commissioned a report from KPMG which carries out PR24 risk analysis on key risk categories based on the company's Business Plan and past performance observed for Anglian Water and the sector. The KPMG report sets out the detailed methodology for estimating the impact of risk on a forward-looking basis. Risk ranges estimated are mapped to table RR30. A high-level commentary on the approach and translation of the risk analysis into table RR30 is provided below.

Risk ranges in RR30 table correspond to a notional company and reflect risk mitigations included in Anglian's plan as set out below.

## Summary of risk mitigations in Anglian Water's PR24 Business Plan:

- A set of principles for the design of PCDs. Acceptance of these principles implies specification of PCDs on a different basis to PR24 FM and mitigates downside totex risk exposure.
- ODI reward/penalty rates different to Ofwat's for four PCs. Alternative rates aim to reduce the overall incentive strength.
- Deadbands for five PCs (CRI, Discharge Compliance, Mains Repairs, Customer Contacts and Bathing Water Quality) and enhanced thresholds for six PCs (Supply Interruptions, PCC, Leakage, Total Pollution Incidents and Internal and External Sewer Flooding). This aims to expand the upside potential and to reduce the asymmetry.
- A 0.5% cap on supply interruptions. The aim of this mitigation is to limit the downside risk exposure and to reduce the asymmetry.

## Overall approach to risk analysis and results on a notional company basis

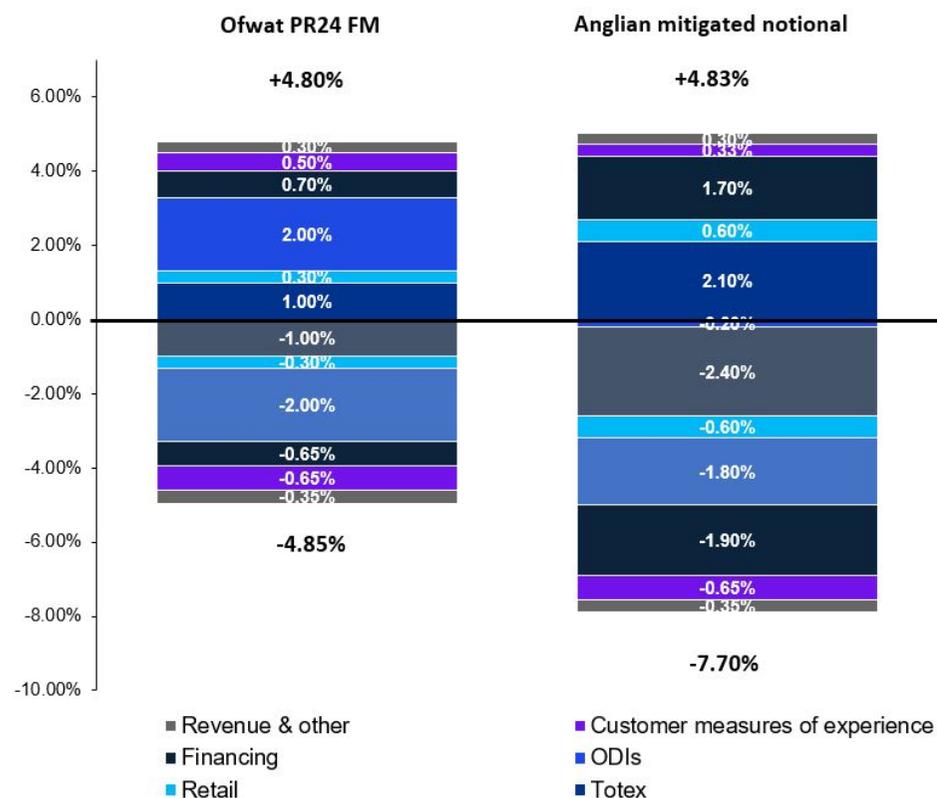
The high (P90) and low (P10) cases for cost and ODI performance have been calculated using a Monte-Carlo simulation approach that yields probability distributions of expected performance on each risk parameter, informed by the sector's standard deviation and mean. Analysis is based on historical sector-wide performance data in the AMP7 price control given its comparable design to the AMP8 incentive regime.

The notional company RoRE ranges have been calibrated to capture anticipated changes in the risk landscape at PR24. Risk ranges incorporate:

- A larger and more complex enhancement programme driven by the statutory requirements;
- Application of Price Control Deliverables (PCDs) to most enhancement spend which reduces the upside and increases downside exposure;
- Stretching performance targets, accompanied by the removal of most ODI caps, deadbands and collars and inherent asymmetry embedded in penalty-only ODIs;
- Risk related to cost of embedded debt performance relative to the sector P50.

The risk analysis post Anglian Water's mitigations results in a RoRE risk range for the notional firm of -7.70% (P10, the low case scenario) to +4.83% (P90, the high case scenario), with mean-expected risk to returns of -1.10% (P50, most likely scenario). The overall RoRE risk range is significantly wider and more skewed to the downside than the illustrative range presented in Ofwat's PR24 FM.

Figure 2 Anglian Water's PR24 RoRE risk ranges against Ofwat's PR24 FM



### Totex scenarios (RR30.1 to RR30.6 and RR30.22 to RR30.27)

The totex risk assessment is performed on more granular level than populating the RR30 table requires or Ofwat's PR24 FM approach implies. The RR30 table splits totex into price control costs (e.g., water totex, wastewater totex, bioresources totex, retail totex and totex associated with additional controls).

Our underlying risk analysis, in addition, separates base and enhancement cost categories. More granular analysis of risk is important to ensure that the risk exposure inherent to each category of spend is appropriately captured.

To populate RR30 table, base and enhancement risk ranges were aggregated for water and wastewater controls through a Monte-Carlo simulation approach to derive the total Wholesale totex risk range in each control. Water base and water enhancement cost risks are aggregated into wholesale water costs (RR30.1 for a high case and RR30.22 for a low case). Similarly, wastewater base and wastewater enhancement cost risks are aggregated into wholesale wastewater costs (RR30.2 for a high case and RR30.23 for a low case).

The 'Bioresources cost' lines (RR30.4 and RR30.25, high and low cases respectively) in the RR30 table are populated based on performance risk related to bioresources base costs.

Performance risks related to bioresources enhancement expenditure are allocated to 'Wholesale wastewater' lines (RR30.2 for a high case and RR30.23 for a low case). The risk analysis has been carried out separately for base and enhancement costs and water and wastewater controls to capture different risk profiles of these cost categories.

Additionally, we have separated out bioresources base costs from wastewater network plus base costs as Ofwat is modelling them separately and is intending to set separate efficiency challenges. All wastewater enhancement lines, including bioresources enhancement expenditure have been assessed together and hence, allocated to wholesale wastewater rows of RR30 tables.

'Retail cost' lines (RR30.3 and RR30.24, high and low cases respectively) in RR30 table are populated based on performance risk related to retail costs.

The reservoir development costs (£233m opex) are allocated into a separate (additional) price control (outside water resources and network plus) in Anglian Water's PR24 Business Plan. Performance risks related to the reservoir development opex are considered as a separate totex risk category in the risk assessment. This is included in 'additional control costs' lines in RR30 table (RR30.5 for a high case and RR30.26 for a low case).

It is important to note that underlying probabilities of risk ranges for individual totex components (water, wastewater, bioresources, retail and additional control) in RR30 table are not in practice fully additive. As a result, row 14 (RR30.6) and row 45 (RR30.27) in RR30 table which sum risk lines will inherently differ from total risk implied by Monte Carlo simulations across cost categories.

In the risk analysis, a Monte-Carlo simulation approach is used to aggregate sub-categories of totex. Risk ranges aggregated through the Monte-Carlo approach is more narrow than additive ranges as a Monte-Carlo simulation approach enables controlling for interactions between different cost performance probabilities and

provides a more robust estimate of the underlying risk range. Figure 2 below sets out differences between the additive and Monte-Carlo simulated ranges for totex risk.

### **ODI scenarios (RR30.7 to RR30.11 and RR30.28 to RR30.32)**

Risk exposure has been assessed separately on each common PC using Anglian's and the sector's past performance. The combined exposure for all ODIs for PR24 is based on the aggregating risk ranges of individual PCs through a Monte-Carlo simulation approach.

To populate RR30 table, water only ODIs have been aggregated together (RR30.7 for a high case and RR30.28 for a low case). All other ODIs have been aggregated as wastewater ODIs (RR30.8 for a high case and RR30.29 for a low case).

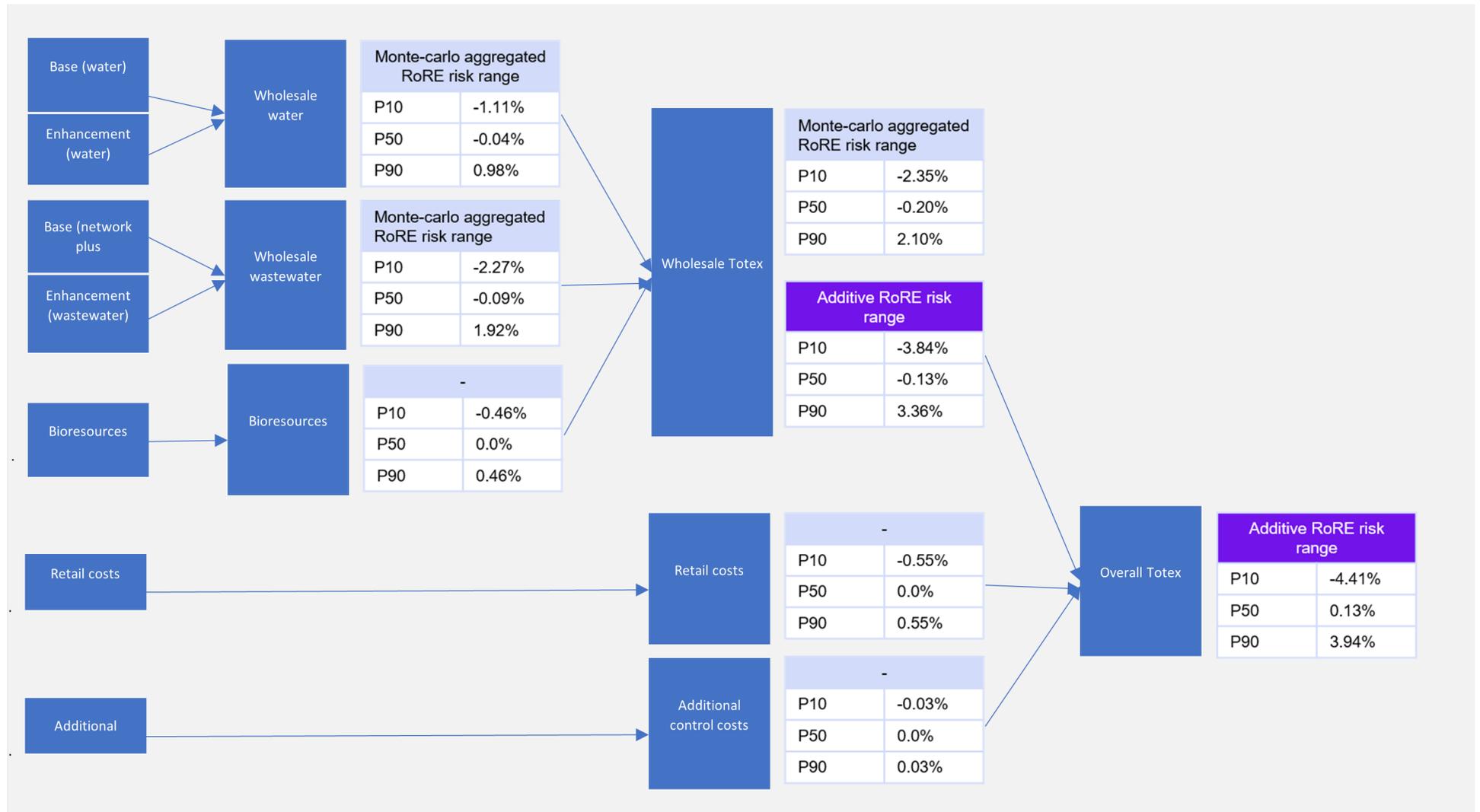
It is assumed that there are no specific ODI categories allocated to 'retail ODIs' or to 'additional control' and therefore these rows are left empty (RR30.9; RR30.10; RR30.30; RR30.31).

Similar to the overall totex risk range, the total exposure on ODIs is also not in practice equal to the sum of the estimated risk ranges of its sub-categories (e.g., Water ODI and Wastewater ODI RoRE risk ranges). As a result, rows 21 (RR30.11) and 52 (RR30.32) which include sums of risk lines do not produce an overall estimate for ODI risk exposure which is fully consistent with Monte-Carlo based results.

In the risk analysis, a Monte-Carlo simulation approach is used to aggregate sub-categories of ODI. Figure 3 below sets out differences between additive and Monte-Carlo simulated ranges for ODI risk.

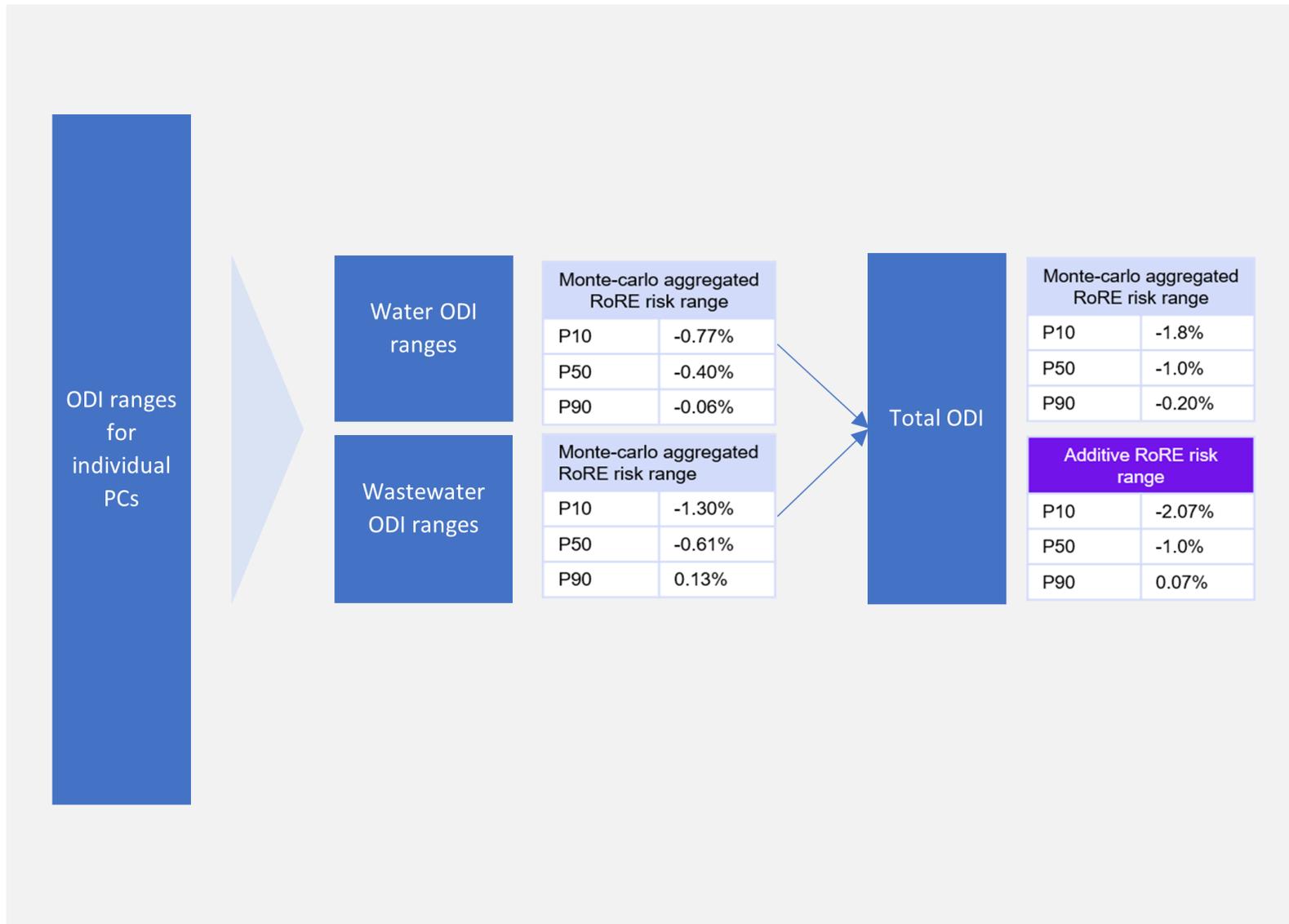
The risk analysis is performed on six sub-categories of overall totex: water base, water enhancement, network plus wastewater base, bioresources base, wastewater enhancement, retail and additional control costs. The scheme below shows how the estimated risk ranges can be aggregated together through a. Monte Carlo simulation and b. an additive approach based on the sum of individual risks.

Figure 3 Totex aggregation: RoRE risk ranges (mitigated notional)



The risk analysis is performed on individual PCs. The scheme below shows how the estimated risk ranges can be aggregated together through a) Monte Carlo simulation and b) an additive approach based on the sum of individual risks.

Figure 4 ODI aggregation: RoRE risk ranges (mitigated notional)



## Financing scenarios (RR30.12 to RR30.14 and RR30.33 to RR30.35)

In the risk analysis, the financing risk exposure includes following risk categories:

- Inflation
- Cost of new debt
- Cost of embedded debt

Embedded debt risk is not included as a separate line item in the RR30 table. Only inflation risk and new debt risk are included the table, and in consequence, the risk ranges from RR30 table are narrower than the range implied by the underlying risk analysis.

Ofwat implicitly assumes that at the P50 level the notional company will neither outperform nor underperform. However, the notional firm might not issue its debt in line with the sector P50 due to different timing of issuance, debt strategy relative to the median company. In addition, median costs could not have been forecast ex ante. As a result, there is a risk that the notional company might not have incurred debt costs in line with sector P50 across AMP8.

## Measure of experience scenarios (RR30.15 to RR30.18 and RR30.36 to RR30.39)

Measure of experience sections in the RR30 table are populated based on the assessment of performance risk in this category.

It is important to note that Ofwat has proposed new changes in the approach to measure of experience incentive in the *consultation on the measures of experience performance commitments at PR24*. The consultation is ongoing and the RoRE risk ranges may change subject to consultation decision.

## Revenue & other (RR30.19 to RR30.21 and RR30.40 to RR30.42)

Revenue is a small component of the RoRE range. We have retained Ofwat's proposed approach to revenue risk in its PR24FM, namely assuming a small downside impact, illustrated as -0.05% (low case) to reflect the impact from the revenue forecasting incentive mechanism and other sources of revenue risk such as bioresources.

## Regulated equity (RR30.43 to RR30.45)

The average RCV value is taken from the financial model (RR30.43). 55% gearing has been used as a notional gearing assumption (RR30.44).

## Other considerations

- Financial estimates are presented in the 2022-23 price base.

- The RR30 table has been populated by estimates for an average year in the overall price control period.
- This risk analysis estimates exposure for the entire AMP, and do not reflect the range of potential outcomes for a single year. As a result, average year estimates do not require any scaling adjustment and already capture intra-year correlations.

## Impact of proposed uncertainty mechanisms (RR30.58 for a high case and RR30.59 for a low case)

We are proposing RPE indexation to mitigate energy cost performance risk over next price control period.

In AMP7 most companies have overspent their originally profiled base cost allowances. This is largely due to increase in energy prices. KPMG analysis of totex risk range is based on AMP7 performance and reflects the energy cost volatility. We have populated totex scenario sections in RR30 tables based on KPMG risk analysis. In our business plan, we are proposing RPE indexation as a potential mitigation of future energy cost risk. KPMG has suggested that if RPE indexation is proposed in our plan, then the impact on RoRE risk would need to be taken into account. We have estimated the impact of historical energy risk on RoRE range of +/-0.2%, which is used to populate the section on proposed uncertainty mechanisms (RR30.58 for a high case and RR30.59 for a low case) in RR30.



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