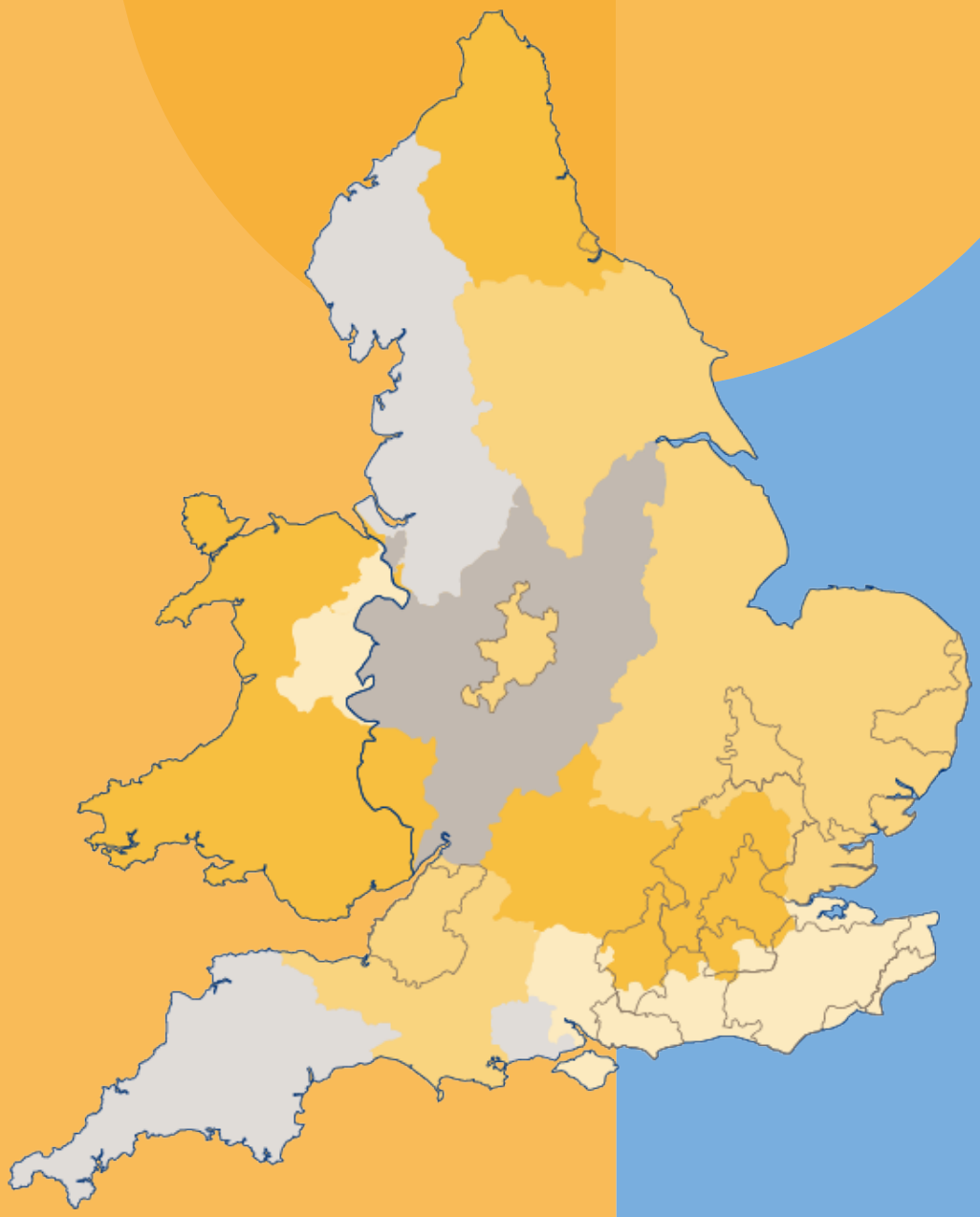
July 2019

Trust in water

PR19 draft determinations

Anglian Water draft determination



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PR19 draft determinations: Anglian Water draft determination

About this document

This document, together with the 'Notification of the draft determination of price controls for Anglian Water, sets out for consultation the details of the draft determination of price controls, service and incentive package for Anglian Water for 2020 to 2025. All figures in this document are in 2017-18 prices except where otherwise stated.

The draft determination sets out:

- the outcomes for Anglian Water to deliver;
- the allowed revenue that Anglian Water can recover from its customers; and
- how we have determined allowed revenues based on our calculation of efficient costs and the allowed return on capital.

The draft determination covers five price controls for the 2019 price review (PR19):

- water resources;
- water network plus;
- wastewater network plus;
- bioresources; and
- residential retail.

This draft determination is in accordance with our PR19 methodology, our statutory duties and the UK Government's statement of strategic priorities and objectives for Ofwat. We have also had regard to the principles of best regulatory practice, including the principles under which regulatory activities should be transparent, accountable, proportionate, consistent and targeted.

All of the responses to the initial assessment of business plans, including all of the companies' revised business plans, provided by 1 April 2019 are taken into account in our decisions where relevant. Where appropriate, we explicitly set out our response to points and issues raised by respondents.

Our decisions also take into account the representations made on the fast track draft determinations where points and issues raised are relevant to the slow track and significant scrutiny draft determinations. We will deal with the other elements of the representations on the fast track draft determinations as part of the final determinations.

We have not necessarily been able to take full account of all late evidence, submitted after 1 April 2019 business plans, and we will consider this information for the final determination.

The appendices to this document provide more detail and form part of the draft price control determination:

- PR19 draft determinations: Anglian Water - Cost efficiency draft determination appendix
- PR19 draft determinations: Anglian Water - Outcomes performance commitment appendix
- PR19 draft determinations: Anglian Water - Accounting for past delivery appendix
- PR19 draft determinations: Anglian Water - Allowed revenue appendix

For all other documents related to the Anglian Water draft determination, please see the draft determinations webpage.

How to respond

Written representations on the draft determinations should be provided to us by 10am on 30 August 2019. Representations can be made by all stakeholders. Representations can be sent either to our PR19 inbox (PR19@Ofwat.gov.uk) or by post to our Birmingham office address: Ofwat, Centre City Tower, 7 Hill Street, Birmingham, B5 4UA.

To ensure transparency, we expect companies to publish their representations in full. We also intend to publish all the written representations we receive on our website once our final determinations are made.

In view of this, if respondents consider that some of the information in their representations should not be disclosed (for example, because they consider it is commercially sensitive information) they should identify that information and explain why. We would expect strong, robust reasons that are specific to the information concerned. We will take such explanations into account, but we cannot give an assurance that information included in representations will not be disclosed.

Where companies are making representations, they should consider what further evidence may be necessary to submit with their representations as a result of this draft determination. Where companies consider that we have not appropriately considered any points previously raised by the company, companies should include this within their representations. Companies should provide a completed ‘All company representation pro forma’ alongside any representations.

We will publish Anglian Water’s final determination on 11 December 2019 after considering representations (from all stakeholders) on the draft determination and other relevant matters. If Anglian Water accepts the final determination, it will be accepting that it has adequate funding to properly carry out the regulated business, including meeting its statutory and regulatory obligations, and to deliver the outcomes within its final determination.

Contents

1 Summary

Through PR19 we are enabling, incentivising and challenging water companies to address the key issues facing the sector of climate change, a growing population and ever increasing customer expectations about service. We expect companies to look well beyond the five year price review period to meet needs of future customers and protect and improve the natural environment.

Our PR19 methodology set out a framework for companies to address these challenges, with particular focus on improved service, affordability, increased resilience and greater innovation. Our draft determinations are based on our detailed review of the revised plans submitted to us on 1 April. We are intervening, where required, to protect customers.

1.1 What the draft determination will deliver

Our draft determination for Anglian Water will cut average bills by 12% in real terms in the 2020-25 period compared to the company's proposed 1.1% reduction. Table 1.1 below sets out the difference in bill profile between the company's business plan submission in April 2019 and our draft determination. Average bills are lower than proposed by Anglian Water, reflecting our view of efficient costs. Further details are set out in section 6.

Table 1.1: Bill profile for 2020-25 before inflation

	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Company plan (April resubmission)	£421	£421	£418	£418	£419	£416
Draft determination	£421	£370	£370	£370	£370	£370

Our draft determination allows Anglian Water £1.27 billion to invest in improvements to service, resilience, and the environment. Key parts of this allowance are:

- £729 million to improve the environment by efficiently delivering its obligations as set out in the Water Industry National Environment Programme (WINEP);
- £373 million to improve resilience and the supply-demand balance in particular by investing in a large internal interconnection programme;
- £108 million to increase customer metering and install more than one million smart meters to promote water efficiency;

- £25 million for the company to evaluate potential strategic regional water resource solutions, in partnership with others, including the South Lincolnshire reservoir; and
- £8 million to take forward the Elsham treatment and transfer scheme through direct procurement for customers.

Further details on our cost allowances are set out in section 3.

Our draft determination package includes a full set of performance commitments, specifying the minimum level of service that Anglian Water must commit to deliver for customers and the environment. Each performance commitment also has a financial or reputational incentive to hold the company to account for delivery of these commitments.

The performance commitments require Anglian Water to deliver service improvements by reducing water supply interruptions and internal sewer flooding. Anglian Water will deliver environmental benefits by reducing operational carbon emissions, per capita consumption and leakage. The company will also provide more support for vulnerable customers by 2024-25. Further details of performance commitments are set out in Table 1.2 below and in section 2.

Table 1.2: Key commitments for Anglian Water

Area	Measure
Overall incentive package	Overall, the likely range of returns from the outcome delivery incentive package in our draft determination equates to a return on regulatory equity range of - 3.14% (P10) to +0.47% (P90).
Key common performance commitments	• 17% reduction in annual level of leakage by 2025 from the 2019/2020 level[1] • 5.6% reduction in per capita consumption by 2024-25 • 33% reduction in pollution incidents by 2024-25 • 21% reduction in internal sewer flooding incidents by 2024-25 • 73% reduction in water supply interruptions by 2024-25
Bespoke performance commitments	• 6% reduction in external sewer flooding incidents by 2024-2025 • 10% reduction in operational carbon emissions by 2024-25

Note: The calculations behind these numbers are outlined in the 'Anglian Water - Outcomes performance commitment appendix'

[1]Whilst the figures in the tables of the 'Anglian Water - Outcomes performance commitment appendix' which relate to this performance commitment reflect that it is measured on a three-year average to smooth annual variations due to weather, the overall performance commitment target is a reduction in average annual leakage of 17% (from 2019-20 baseline) by 2024-25

1.2 Allowed revenues

Our draft determination sets allowed revenue or average revenue for each of the price controls. Table 1.3 shows the allowed revenues in the draft determination across each price control. Further details on our calculations of allowed revenues are set out in section 4.

Table 1.3: Allowed revenue, 2020-25 (£ million)

	Water Resources	Network plus - water	Network plus - wastewater	Bioresources	Wholesale Total	Residential retail
Final allowed revenues (£ million)	270.2	1,914.4	2,839.2	408.5	5,432.3	421.2

Note: retail revenue is the sum of the margin, retail costs, and adjustments. The bioresources and residential retail controls are average revenue controls. We have included forecast revenue (in real terms) for these controls to illustrate the total revenue across all controls.

As set out in the 'Cost of capital technical appendix', we are updating our assessment of the cost of capital for Anglian Water's draft determinations. The updated cost of capital is 3.19% (on a CPIH basis, 2.19% on a RPI basis) at the level of the Appointee, a reduction of 0.21% from our early view set out in the PR19 methodology.

We consider that Anglian Water's draft determination is financeable, based on an efficient company, with the notional capital structure, and is sufficient to deliver its obligations, including to ensure a long term resilient service. Each company is responsible for ensuring its capital and financial structure allows it to maintain financial resilience over the short and the long term. We expect Anglian Water to take account of this requirement and of the reasonably foreseeable range of plausible outcomes of their final determination including evidence of further downward pressure on the cost of capital in very recent market data. We expect Anglian Water to provide appropriate Board assurance that it will remain financeable on a notional and actual basis and can maintain its long term financial resilience in its response to our draft determination. Further detail on our assessment of financeability is set out in section 5.

We have encouraged companies to take greater account of customers' interests – and to transparently demonstrate that they are doing so in the way they finance themselves, pay dividends to their shareholders, and determine performance related executive pay. Anglian Water has committed to meeting the expectations set out in

our ‘Putting the sector in balance position statement’. It projects gearing to be over 70% and has confirmed it will apply our gearing outperformance mechanism. The company is taking steps to demonstrate how its dividend and performance related executive pay policies in 2020-25 will align with customer interests. However we expect the company to continue to take steps in these areas to meet our expectations so that customers may have more trust in the water sector. We expect the company to demonstrate that its policy on performance related executive pay demonstrates a substantial link to stretching performance delivery for customers through 2020-25 and to provide detail on which obligations or commitments to customers will be considered in relation to its dividend policy.

In the 'Putting the sector in balance' position statement, we also encouraged companies to adopt voluntary sharing mechanisms, particularly where, for example, companies outperform our cost of debt assumptions. Anglian Water has not proposed any voluntary sharing mechanisms within its business plan. However, it has budgeted £1 million per year for its hardship fund.

1.3 Where we intervene

Our initial assessment of Anglian Water’s plan on 31 January 2019 assessed the plan as slow track. We identified a number of areas where material interventions were required to protect customers’ interests. In its 1 April 2019 revised business plan, Anglian Water has not adequately addressed our concerns. In our draft determinations, we intervene in Anglian Water’s plan in the following areas:

- We align total expenditure (totex) allowances to our view of efficient costs using the comparative information available to us and because the company did not provide convincing evidence to explain why its proposed costs were higher. This intervention reduces Anglian Water totex costs by 20.5%, a substantial reduction in costs, and saves customers £1.3 billion.
- We make a partial allowance for enhancement expenditure for leakage reduction as we only fund the element of the company’s performance commitment beyond the forecast upper quartile. We expect an efficient company to achieve leakage reductions below this level.
- We significantly increase expected performance on some common performance commitments to reach upper quartile.
- We add performance commitments with outcome delivery incentives to recover costs if the company does not fully delivery its smart metering and interconnection programmes.
- We apply further underperformance payments for WINEP and Bathing Water quality performance commitments.
- We set the level of split between fixed and variable bioresources costs.

We set out further detail of our interventions in this document and in the Anglian Water actions and interventions documents.

2 Outcomes

The outcomes framework is a key component in driving companies to focus on delivering the objectives that matter to today's customers, future customers and the environment in the 2020-25 period and beyond. Outcomes define the service package that companies should deliver for their customers and their incentives to do this.

There are two key elements of the outcomes framework: performance commitments and outcome delivery incentives. Performance commitments specify the services that customers should receive and set out in detail the levels of performance that the companies commit to achieve within the five year period from April 2020 to March 2025. Outcome delivery incentives specify the financial or reputational consequences for companies of outperformance or underperformance against each of these commitments. (They are referred to as 'out' where there is a payment to the company for better than committed performance, 'under' where there is a payment to customers where there is worse than committed performance, or 'out-and-under' incentives, depending on their design). Most outcome delivery incentives will be settled at the end of each year to bring incentives closer to the time of delivery of the service ('in-period' incentives) and some will be settled once at the end of the five year period ('end-of period' incentives). The outcomes framework gives companies the freedom to innovate and explore to find the most cost-effective way of delivering what matters to their customers.

The outcomes framework sits in the broader context of the company's statutory and licence requirements for service delivery. Independently of the outcomes framework, each company also has to ensure that it complies with its legal obligations, or risk enforcement action. If a company's performance falls below the level set for a performance commitment (irrespective of the existence of any deadband or collar), we will consider whether this is indicative of wider compliance issues to the detriment of consumers and whether enforcement action, with the potential for remedial and fining measures, is warranted.

Please see the 'Delivering outcomes for customers policy appendix' for further details on our policy decisions on cross-cutting issues such as common performance commitments and outcome delivery incentive rates.

2.1 Customer engagement

In our PR19 methodology we set out our expectations that companies should demonstrate ambition and innovation in their approach to engaging customers as they develop their business plans. This includes direct engagement with customers to develop a package of performance commitments and outcome delivery incentives.

We expect customer challenge groups to provide independent challenge to companies and independent assurance to us on: the quality of a company's customer engagement and the degree to which this is reflected in its business plan.

We continue our assessment of customer engagement evidence following each company's submission of its response to our initial assessment of its plan in April. We find variability in both the quality of engagement undertaken by companies and the extent to which customers' views are reflected in company proposals.

Anglian Water's plan demonstrates an overall high quality, ambitious and innovative approach to customer engagement and participation and shows how customer views help shape the plan and ongoing business operations. In particular, the company shows effective use of a wide range of customer engagement techniques (both on triangulation and segmentation), including innovative multi-stage willingness to pay research and its approach adopts all four areas of customer participation ('future', 'action', 'community' and 'experience').

In response to our initial assessment of its plan, Anglian Water presents new evidence of customer support 'regarding the relatively minor changes to our plan now being proposed'. Specifically the new research covers: the affordability and acceptability of the revised plan; the bathing waters performance commitment; deadbands on some performance commitments (leakage, sewer collapses, external sewer flooding and bathing water quality); the WINEP incentive mechanism; the revised bill profile; and executive pay. We find all new evidence to be of a satisfactory quality.

We note that Anglian Water did not present new evidence of customer support in relation to some of the proposed actions set out in our initial assessment of its plan (for example caps and collars on some performance commitments) but did provide further explanation of evidence included within the September 2018 plan. We also note that, when referring to recently submitted evidence of the customers' views on the overall affordability and acceptability of the revised plan, the company includes 'don't know' and 'don't mind' as affirmative responses, which we do not regard to be good practice as it overstates the acceptability of the plan (see section 6.1 below).

Anglian Water's customer challenge group comments that 'considerable emphasis was placed on the engaged and informed input of Anglian Water's online community'. They add: 'the customer challenge group was encouraged to note that meaningful customer engagement was possible around apparently complex areas such as this, through careful design of scripts for briefing customers on the topic and relating it to bill profiles'.

The customer challenge group 'endorses the statement that the company's overall approach to caps, collars and deadbands reflects customer engagement' and 'outcome delivery incentive rates are fair based on good evidence about customer preferences'.

2.2 Performance commitments and outcome delivery incentives

Anglian Water's performance commitments and outcome delivery incentives for the 2020-25 period are listed in Table 2.2 and Table 2.3. The detail of these performance commitments and outcome delivery incentives are set out in the 'Anglian Water - Outcomes performance commitment appendix'. The performance commitments and outcome delivery incentives include the revisions accepted by the company in response to our 31 January 2019 initial assessment of business plans and any additional interventions we are making in the draft determination.

The material interventions we are making in the draft determination are set out in Table 2.1 below. 'Anglian Water – Delivering outcomes for customers actions and interventions' sets out in detail our interventions in the company's performance commitments and outcome delivery incentives following our 31 January 2019 initial assessment of plans.

Table 2.1: Summary of key interventions on outcomes

Intervention description
We accept the company's proposed commitment to reduce the annual level of leakage by 17% which, when delivered, will maintain the company's frontier performance above forecast industry upper quartile (UQ) by 2024-25. Removing the deadband for leakage to more strongly incentivise good performance. Accepting the company's proposed outcome delivery incentive rates in relation to leakage.
Increasing the target reduction in per capita consumption to 5.6% to take it to upper quartile performance by 2024-25. Increasing underperformance and outperformance rates in relation to per capita consumption, which were low compared to other companies' and imply materially lower level of customer protection than the company's PR14 incentive, which is of concern given the company's current poor performance on this measure and takes into account that the company is in a water stressed region.
We amend our forecast industry UQ level for water supply interruptions and this requires a total improvement of 73% by 2024-25, compared with the 49% improvement proposed by Anglian. The improvement is compared with the company's forecast level in 2019/20. The company is currently performing close to the UQ level but proposed deterioration in forecast performance to 2019-20. We are setting an industry wide glide path for all years before 2024-25. Reducing underperformance and outperformance rates in relation to water supply interruptions, which were high compared to other companies, which is of concern given the company is earning high outperformance payments on its equivalent PR14 incentive.
Increasing the target reduction in pollution incidents to 33% to take the company to forecast industry upper quartile by 2024-25. Accepting the company's proposed outcome delivery incentive rates in relation to pollution incidents.
Increasing the target reduction in relation to internal sewer flooding to 21% by 2024-25 to achieve our forecast industry upper quartile levels. Accepting the company's outcome delivery incentive rates for internal sewer flooding.
Adding performance commitments to recover the costs if Anglian does not fully deliver its smart metering or internal interconnection delivery programmes.
Increasing the level of potential underperformance payments, to protect customers from late delivery of key environmental programmes.
Increasing the level of potential underperformance payments, through removing deadbands, to more strongly incentivise good performance in bathing water quality.

Table 2.2: Summary of performance commitments: common performance commitments

Name of common performance commitment	Type of outcome delivery incentive	Price controls outcome delivery incentives will apply to
Water quality compliance (CRI) [PR19ANH_3]	Financial - Under; In-period	Water network plus
Water supply interruptions [PR19ANH_4]	Financial - Out & under; In-period	Water network plus
Leakage [PR19ANH_5]	Financial - Out & under; In-period	Water network plus
Per capita consumption [PR19ANH_6]	Financial - Out & under; In-period	Water network plus
Mains repairs [PR19ANH_11]	Financial - Under; In-period	Water network plus
Unplanned outage [PR19ANH_12]	Financial - Under; In-period	Water network plus
Risk of severe restrictions in a drought [PR19ANH_9]	Reputational	N/A
Priority services for customers in vulnerable circumstances [PR19ANH_22]	Reputational	N/A
Internal sewer flooding [PR19ANH_7]	Financial - Out & under; In-period	Wastewater network plus
Pollution incidents [PR19ANH_8]	Financial - Out & under; In-period	Wastewater network plus
Risk of sewer flooding in a storm [PR19ANH_10]	Reputational	N/A
Sewer collapses [PR19ANH_13]	Financial - Under; In-period	Wastewater network plus
Treatment works compliance [PR19ANH_14]	Financial - Under; In-period	Water network plus; Wastewater network plus
C-Mex: Customer measure of experience [PR19ANH_1]	Financial - Out & under; In-period	Residential retail
D-Mex: Developer services measure of experience [PR19ANH_2]	Financial - Out & under; In-period	Water network plus; Wastewater network plus

Table 2.3: Summary of performance commitments: bespoke performance commitments

Name of bespoke performance commitment	Type of outcome delivery incentive	Price controls outcome delivery incentives will apply to
Percentage of population supplied by a single supply system [PR19ANH_15]	Reputational	N/A
Properties at risk of persistent low pressure [PR19ANH_16]	Financial - Out & under; In-period	Water network plus
External Sewer Flooding [PR19ANH_17]	Financial - Out & under; In-period	Wastewater network plus
Reactive Mains Bursts [PR19ANH_18]	Reputational	N/A
Bathing Waters Attaining Excellent Status [PR19ANH_19]	Financial - Out & under; In-period	Wastewater network plus
Abstraction Incentive Mechanism [PR19ANH_20]	Financial - Out & under; In-period	Water resources
Supporting customers in vulnerable circumstances (qualitative) [PR19ANH_21]	Financial - Out & under; In-period	Residential retail
Managing void properties [PR19ANH_23]	Financial - Out & under; In-period	Residential retail
Operational carbon [PR19ANH_24]	Reputational	N/A
Capital carbon [PR19ANH_25]	Reputational	N/A
Non-household Retailer Satisfaction [PR19ANH_30]	Reputational	N/A
Water Industry National Environment Programme [PR19ANH_32]	Financial - Out & under; In-period	Water resources; Wastewater network plus
Water quality contacts [PR19ANH_34]	Financial - Out & under; In-period	Water network plus
Event Risk Index (ERI) [PR19ANH_35]	Reputational	N/A
British Standards Institution - Standard for Inclusive Service [PR19ANH_36]	Reputational	N/A
Helping those struggling to pay [PR19ANH_37]	Reputational	N/A
Smart metering delivery [PR19ANH_38]	Financial - Under; End of period	Water network plus
Internal interconnection delivery [PR19ANH_39]	Financial - Under; End of period	Water network plus
Value for Money [PR19ANH_40]	Reputational	N/A
WINEP Delivery [PR19ANH_NEP01]	Reputational	N/A

Figure 2.1 and Figure 2.2 below provide an indication of the financial value of each of Anglian Water's outcome delivery incentives (taking into account the impact of our draft determination interventions) showing how much the company would have to return to customers if it underperformed to the P10 level and how much the company would gain if it over performed to the P90 level. The figures cover common and bespoke commitments respectively.

Table 2.4 below provides an indication of the financial value of the overall package at the upper and lower extreme levels of performance (expressed as a percentage point impacts on RoRE (return on regulated equity)) and the overall impact of our draft determination interventions. The estimates are based on the company's own view of the plausible bounds of performance. The P90 is the performance threshold at which there is only a 10% chance of outturn performance being better. The P10 is the performance threshold at which there is only a 10% chance of outturn performance being worse.

Figure 2.1: Projected P10 penalties and P90 payments for common performance commitments over 2020-25 (£ million)

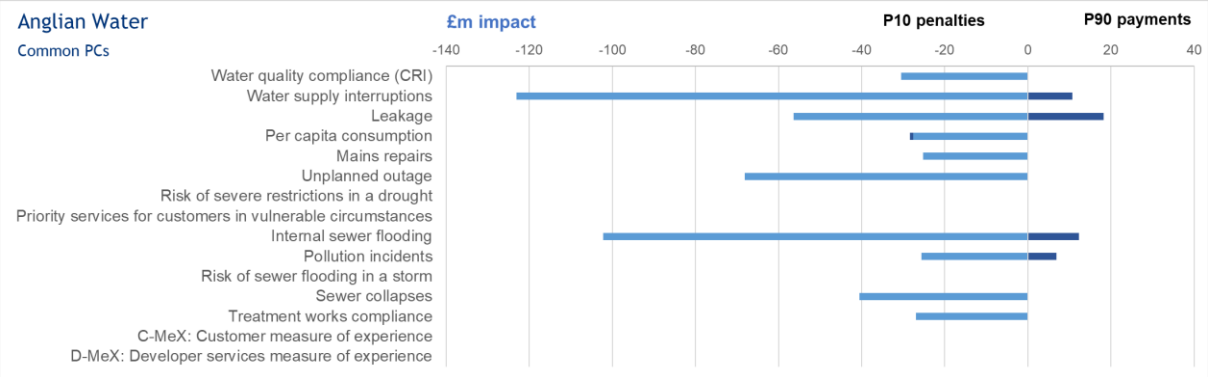


Figure 2.2: Projected P10 penalties and P90 payments for bespoke performance commitments over 2020-25 (£ million)

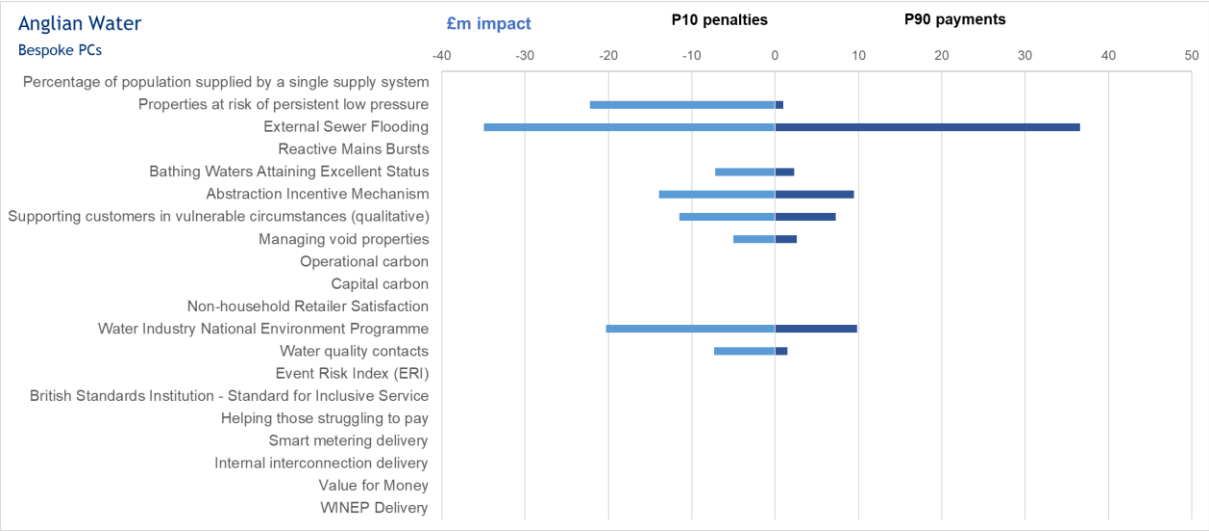


Table 2.4: Impact of draft determination interventions on RoRE range

	April 2019 business plan		Draft determination	
	% of 5 year regulatory equity		% of 5 year regulatory equity	
	P10	P90	P10	P90
Anglian Water	-1.58	+0.61	-3.14	+0.47

In the PR19 methodology we said that we expect companies to propose approaches to protect customers in case their outcome delivery incentive payments turn out to be much higher than expected. We asked companies in our initial assessment of business plans 'PR19 initial assessment of plans: Delivering outcomes for customers policy appendix' to put in place additional protections for customers where we considered protections were not adequate. We are applying caps and collars to financially material and/or highly uncertain performance commitments and allowing caps and collars on other performance commitments where company proposals are supported by high quality customer engagement.

The company presented evidence that customers preferred a Return on Regulatory Equity (RoRE) range of ±2%, supported caps on outcome delivery incentives and want outperformance above 2% to be returned to customers. However, the company proposes achieving this through a package of caps and collars on ODIs and arrangements to smooth bill volatility rather than an annual outperformance sharing mechanism. We are making a number of changes to the company's ODIs and so we

are intervening to set our standard sharing mechanism where 50% of outperformance payments that exceed 3% return of regulatory equity (RoRE) in any year are shared with customers through bill reductions in the following year. We set out further detail of the mechanism in 'Delivering outcomes for customers policy appendix'.

In our PR19 methodology, we decided to replace the current Service Incentive Mechanism (SIM) with two new mechanisms to incentivise companies to provide a great experience for residential customers (our customer measure of experience, or C-MeX) and developer services customers (our developer services measure of experience, or D-MeX). C-MeX and D-MeX will be operational from April 2020. We set out further details on C-MeX and D-MeX in the 'Delivering outcomes for customers policy appendix'. We will publish our decisions on C-Mex and D-Mex incentive designs for 2020-25 as part of the final determinations in December.

We will finalise the company's performance commitments and outcome delivery incentives in the light of representations on this draft determination, so that these can be reflected as appropriate in the company's final determination to be published in December.

2.3 Linking outcomes to resilience

In our initial assessment of plans, we were concerned that companies' plans lacked a clear line of sight between the identified risks to resilience, the proposed mitigations to tackle these risks, and how these mitigation plans were reflected as service improvements in the form of stretching performance commitments. In this context, we are intervening to ensure Anglian Water's asset health challenges are reflected in its outcomes and performance commitments, particularly in relation to the levels of stretch of its treatment works compliance performance commitment, and the incentives attached to unplanned outage, sewer collapses and total mains repairs.

Our initial assessment of plans also noted that Anglian Water provided some evidence linking priority risks to its systems and to groups of performance commitments. The company provided general information regarding risks affecting main business areas and how mitigating these may increase the level of development of its systems in relation to resilience. However, Anglian Water provided insufficient evidence to demonstrate the benefit that specific investments have in mitigating quantified levels of risk (and/or in increasing system resilience) and supporting stable or improved commitment targets. We expect companies to address this and other issues associated with the way they integrate resilience across their business in the action plans that will be submitted by 22 August 2019 and in their responses to the draft determinations in relation to specific resilience

investment proposals. We will take into account the quality of companies' response in our final determinations.

3 Cost allowances

We set out in our PR19 methodology that we expect company business plans to show a step change in efficiency. In its April business plan Anglian Water requests expenditure levels that are 44% higher than it has incurred historically for totex and 22% higher for base costs. Anglian Water has not substantially revised its cost proposals since our initial assessment of business plans. Reductions in costs relate to reductions in scope (for example, no longer requiring metaldehyde treatment) rather than improved cost efficiency. We challenge these costs for all areas, but most notably for the water network plus control, where we find the proposed costs to be significantly greater than our view of efficient costs.

For enhancement expenditure we have challenged the scope of work, the evidence provided to support solution selection, and the efficient delivery of programmes. In particular, we are challenging the need for an additional cost allowance to maintain current leakage performance. Although, we support companies being ambitious in this area of performance, we consider that our outcomes mechanism is a more appropriate way of remunerating companies for performing beyond stretching targets.

We recognise that Anglian Water has made additional submissions including cost adjustment claims after 1 April 2019, notably additional cost information on 31 May and 7 June, including evidence on capital maintenance expenditure. However as these were submitted significantly after the business plan submission date, we could not take full account of them for draft determinations.

Our approach to setting total expenditure (totex) allowances is detailed in our publication ‘Securing cost efficiency technical appendix’. In addition to challenging companies to be more efficient we have also, where appropriate, set safeguards to protect customers if specific investments are not delivered as planned.

In the ‘Anglian Water – Cost efficiency draft determination appendix’ we provide more detailed information on our cost challenge for enhancement expenditure, our allowance for cost adjustment claims and transitional expenditure and how we will deal with the uncertainty in WINEP.

3.1 Wholesale total expenditure

Table 3.1 shows the totex allowances by year and by wholesale price control for the period 2020-25. We have phased our allowed totex over 2020-25 using the company business plan totex profile.

Table 3.1: Totex[1] (excluding pension deficit recovery) by year for wholesale controls, 2020-25 (£ million, 2017-18 CPIH deflated prices)

	2020-21	2021-22	2022-23	2023-24	2024-25	Total	Company view - total
Water Resources	62.7	63.4	63.4	54.1	43.2	286.8	312.1
Water network plus	331.0	386.5	418.0	415.1	327.2	1,877.8	2,602.3
Wastewater network plus	403.7	491.1	497.0	600.3	523.2	2,515.4	2,958.2
Bioresources[2]	66.9	69.8	65.9	61.1	64.3	328.0	491.1
Total	**864.4**	**1,010.8**	**1,044.3**	**1,130.5**	**957.9**	**5,007.9**	**6,363.7**

1 Totex includes all costs except pension deficit recovery costs. This includes third party costs, operating lease adjustments, allowances related to the development of strategic regional water resource solutions and costs that are assumed to be recovered through grants and contributions.
2 The bioresources control is an average revenue control. The totex allowance in our draft determination is based on a forecast level of tonnes of dry solids.

Table 3.2 sets out the build-up of our totex allowance from base and enhancement costs. Base expenditure refers to routine, year on year costs, which companies incur in the normal running of their business. Enhancement expenditure refers to investment for the purpose of enhancing the capacity or quality of service beyond base level.

For draft determinations, we have changed the scope of costs included under base expenditure compared to the initial assessment of business plans. Our base costs for wholesale water now include costs associated with the connection of new developments (ie new developments and new connection costs) and costs for addressing low pressure. Our base costs for wholesale wastewater now include new connections and growth, growth at sewage treatment works and costs to reduce flooding to properties that were previously assessed as enhancement expenditure.

Table 3.2: Totex by wholesale price control and type of cost, 2020-25 (£ million, 2017-18 CPIH deflated prices)

	Our cost allowance					Company view
	Water resources	Water network plus	Wastewater network plus	Bioresources	Total	Total
Base expenditure[1]	204.7	1,303.6	1,814.8	325.4	3,648.4	4,342.0
Enhancement expenditure	59.6	506.8	699.5	2.7	1,268.7	1,919.5
Third party costs	8.5	60.8	7.5	2.5	79.2	79.2
Total – excluding pension deficit recovery	**272.8**	**1,871.2**	**2,521.8**	**330.6**	**4,996.4**	**6,340.8**
Pensions deficit recovery costs[2]	3.0	24.4	30.4	12.0	69.8	57.2
Total	**275.7**	**1,895.6**	**2,552.2**	**342.6**	**5,066.1**	**6,398.0**

1. We display base costs under the new definition. Company business plan base costs exclude enhancement opex.
2. We are displaying pension deficit recovery costs separately as they are not included in the calculation for PAYG (see section 4).
3. Table 3.2 does not include operating lease adjustments and allowances related to the development of strategic regional water resource solutions. Any ex-ante cost sharing adjustments and costs that are assumed to be recovered through grants and contributions are also excluded. This is to allow a simpler comparison with base and enhancement costs. Table 3.6 sets out a reconciliation of inclusions and exclusions in totex for cost sharing and for the financial model.
4. The company view of pension deficit recovery costs is the full cost, not just the cost the company expects to include within price controls.
5. The company view of business plan costs is understated due to erroneous treatment of enhancement opex. This does not affect our assessment of these costs. Further details are outlined in our feeder model FM_WWW4_ST_DD.

3.2 Base expenditure

Table 3.3 shows our challenge to company proposed base expenditure. We distinguish between ‘modelled base costs’ and ‘unmodelled base costs’. We challenge modelled based costs based on comparative assessment (using econometric models). Our efficiency challenge is based on cost performance within the sector as well as evidence from the wider economy.

Unmodelled base costs include business rates; abstraction charges; costs to meet the Traffic Management Act and costs to meet the wastewater Industrial Emissions

Directive where applicable. Our assessment of these costs sits outside of our econometric models and we explain our approach in 'Securing cost efficiency technical appendix'.

Table 3.3: Base totex expenditure, 2020-25 (£ million, 2017-18 CPIH deflated prices)

Price Control	Company business plan - base cost	Modelled base costs efficiency adjustment	Unmodelled base costs adjustment	Base cost allowance
Water Resources	220.4	-15.7	-0.0	204.7
Water Network plus	1,574.7	-270.6	-0.6	1,303.6
Wastewater Network plus	2,088.9	-263.9	-10.1	1,814.8
Bioresources	458.1	-131.3	-1.4	325.4
Total	4,342.0	-681.5	-12.1	3,648.4

1. Base costs include operating and maintenance costs as well as new development, new connections and addressing low pressure costs in water, and new connections and growth, growth at sewage treatment works, costs to reduce flooding to properties and transfer to private sewers and pumping stations in wastewater. Company business plan base costs exclude enhancement opex.
2. The company view of business plan costs is understated due to erroneous treatment of enhancement opex. This does not affect our assessment of these costs. Further details are outlined in our feeder model FM_WWW4_ST_DD.

We assess growth related expenditure as part of the base cost econometric models. Our integrated base cost models use comparative benchmarking with the sector based on historical cost performance to forecast efficient expenditure. We consider this is a robust approach for routine activities, such as those related to growth. Anglian Water requested £707.2 million in growth related expenditure, which is atypically high. We have therefore undertaken a detailed assessment (or deep dive) of Anglian Water's growth costs.

Anglian Water forecasts a step-change in the number of new connections in the period 2020-21 to 2024-25 based on Local Authority statutory local plans, which it states is in part due to the Cambridge-Milton Keynes-Oxford corridor development. However, it fails to test any sensitivities around the Local Authority local plans, which the company acknowledges are uncertain. The company also does not quantify any scale efficiencies that it could expect to achieve through a significant increase in the number of new connections. We have used independent evidence of growth projections, provided by the ONS and find Anglian Water's growth projections to be

very high relative to the independent forecast as well as compared to historical growth rates. We set our allowances based on independent forecasts and we provide a true-up mechanism in our draft determination to address any differences relating to potential forecast error for new connection costs.

Anglian Water also argues that building new developments on green field sites leads to higher costs for them than for other companies. However, it provides no compelling evidence to demonstrate that the cost of new developments on green field sites are significantly higher than on brown field sites.

We consider that the evidence provided by Anglian Water is not sufficient and convincing to justify any additional allowance to our modelled base plus allowance.

3.3 Enhancement expenditure

Table 3.4 summarises our allowances for enhancement expenditure.

Our draft determination allows Anglian Water £1.27 billion to invest in improvements to service, resilience, and the environment. Key parts of this allowance are:

- £729 million to improve the environment by efficiently delivering its obligations as set out in the WINEP;
- £373 million to improve resilience and the supply-demand balance in particular by investing in a large internal interconnection programme;
- £108 million to increase customer metering and install more than one million smart meters to promote water efficiency; and
- £8 million to take forward the Elsham treatment and transfer scheme through direct procurement for customers.

We allow a further £25 million for the company to evaluate potential strategic regional water resource solutions, in partnership with others, including the South Lincolnshire reservoir.

The most material areas of enhancement cost challenge for Anglian Water are in supply-demand balance including the metering and interconnection programme, the wastewater programme within WINEP and resilience programme.

Metering

We make an enhancement allowance for companies to install new meter to fulfil customer requests and deliver reductions in demand. We use an econometric model to determine allowances for new meter installations and any activities outside this

scope are assessed through a deep dive. The additional activities we consider in the deep dive include the replacement of existing meters with smart meters and supporting infrastructure. Based on cost benchmarking of common activities with other company claims and assessing company specific information, we make an allowance for the efficient delivery of these activities, which is lower than the company requests.

Interconnections

As part of its package of solutions to enhancing the supply-demand balance and resilience, the company proposes a large internal interconnection programme. We assess this investment through a deep dive. We accept the identified need to address supply-demand deficits, however, the evidence does not sufficiently demonstrate that the programme represents the best value for customers. The benefits beyond those required to satisfy the supply-demand deficit the company presents in its revised draft water resources management plan are not clearly quantified. The company has not set out that is has fully investigated alternative solution types such as third party options and water trading, in a number of its water resource zones. We review the individual solutions selected, make an efficient allowance for some elements and challenge others where selection of preferred solution is unclear. We identify several solutions within the interconnection programme that we propose to be delivered through direct procurement for customer. We allow the company funding to set up and administer direct procurement for customers rather than the funding to construct the whole interconnection solution itself (see section 3.7 below).

Leakage

For leakage our expectation for base service levels is that an efficient company should achieve industry forecast upper quartile performance by 2024-25 in both normalised measures (per property and per kilometre of main). This performance is funded through the base allowance. We allow enhancement costs only where a company's performance commitment goes beyond the forecast upper quartile threshold. As this is achieved by Anglian Water, we allow some funding under enhancement, for the volume of leakage reduction delivered beyond the forecast upper quartile threshold. We use the leakage reduction unit cost the company identifies and apply the company specific efficiency factor to make the allowance.

Anglian Water makes a leakage cost adjustment claim for base costs to maintain frontier performance. Since the initial assessment of business plans we have refined our approach and we now reject the company's claim in full. The decision is consistent with other performance measures where we expect companies to maintain current levels of performance without additional funding, and we provide the

opportunity to achieve outperformance payments for leakage reductions beyond their stretching performance commitment levels. The company's frontier performance is reflected in both the leakage enhancement allowance and in how we calculate the stretching performance commitment level for Anglian Water for 2020-25. We do not make any additional allowance for base expenditure because future outperformance payments are set in relation to current frontier performance levels. Companies are able to earn outperformance payments if they deliver leakage reductions beyond their performance commitment. Similarly, the company has been able to earn outperformance payments for its frontier performance in the period 2015-20 and these payments ensure the company is rewarded for its efforts beyond stretching performance.

Resilience

For water resilience expenditure we have made significant reallocations to other enhancement lines to assess the proposed costs on a consistent basis with other companies. Once reallocations are complete, the resilience expenditure proposed by the company concerns removing single sources of supply and improving resilience at water treatment works. We disallow the majority of the treatment works resilience investment. We consider that most of the activity is covered by our allowance for base maintenance.

For wastewater resilience we assess the proposed freeform investment ‘pluvial and fluvial’ flood protection for assessment as part of the resilience line, as we did during the initial assessment of business plans. The investment is primarily composed of opex. In our initial assessment of business plans we only assessed material capex proposals. Consequently, we did not conduct a deep dive of this investment and we made an efficient allowance. For draft determinations we consider totex and have conducted a deep dive. The majority of the investment is for ‘115 anticipated schemes’ for which the company anticipates third parties, such as the Environment Agency and Lead Local Flood Authorities, to request contributions towards. We disallow this component of the investment because the company provides no evidence on the specific cause of failure the investment mitigates; the probability of failure; how the failure and its consequence is currently beyond management control; the impact on customer service. Furthermore, there is insufficient evidence to confirm that there is no overlap between this investment and any improved performance measured by the company's internal sewer flooding; external sewer flooding and; risk of sewer flooding in a storm performance commitments. We invite the company to provide this evidence, should it wish to demonstrate the need for this investment in response to our draft determination.

Water Industry National Environment Programme (WINEP)

We assess the wastewater schemes in WINEP using comparative modelling across a range of activities and assessed overall efficiency at a programme level and conclude that Anglian costs are well above efficient levels and based on this apply a 15% challenge to Anglian Water's requested costs. Looking at a programme level allows us to balance modelled outputs where a company appears inefficient and where they appear efficient compared to other companies. Anglian Water is notably inefficient for these activities, including delivery of storage in the network and improving sanitary parameters, but does appear efficient in delivering schemes for flow to full treatment and chemicals removal. We are allowing efficient costs for Anglian Water irrespective of the current level of certainty of individual schemes within the programme ie allowance is being made for all schemes with 'green' or 'amber' status.

Strategic regional water resource solutions

We make an additional allowance of £25 million for the company to evaluate potential strategic regional water resource solutions, in partnership with others, including the South Lincolnshire reservoir. The 'Strategic regional water resource solutions appendix' provides more details.

Our document 'Anglian Water - Cost efficiency draft determination appendix' sets out in more detail the cost allowances by investment area for each price control, and we give full details in our published models.

Table 3.4: Enhancement totex expenditure, 2020-25 (£ million, 2017-18 CPIH deflated prices)

Service	Company requested totex	Scope and efficiency adjustment	Our allowance
Water Resources	84.6	-25.0	59.6
Water Network plus	955.6	-448.8	506.8
Wastewater Network plus	853.4	-153.9	699.5
Bioresources	25.9	-23.1	2.7
Total	1,919.5	-650.8	1,268.7

3.4 Cost sharing

When a company overruns its totex allowance, the additional cost incurred above our allowance will be shared between its investors and customers. When a company spends less than its totex allowance, it will share the benefits with customers.

For the draft determinations we calculate each company's cost sharing rates based on the ratio of the company's view of costs in its September 2018 business plan relative to our view of efficient costs. For the final determinations we propose to calculate the company's view of costs based on a 50% weight on the company's final cost proposals in its representation to the draft determination and 50% weight on the September 2018 business plan. We explain our approach to calculating cost sharing rates in the 'Securing cost efficiency technical appendix'.

Table 3.5: Totex cost sharing for cost performance for 2020-25, %

	Water resources	Network plus - water	Network plus - wastewater
Cost sharing rate – outperformance	35.0%	35.0%	36.2%
Cost sharing rate – underperformance	65.0%	65.0%	63.8%

Table 3.6 sets out the costs that are subject to cost sharing. We apply cost sharing to net totex. Net totex excludes grants and contributions, costs of operating leases, strategic regional water resources development costs, third party costs and pension deficit recovery cost.

We adjust allowed costs to reflect a change in the accounting treatment of leases, which causes some assets formerly recognised as operating leases to be recognised on the company's balance sheet. In doing so, we have followed the approach set out in IN 18/09 Guidance for reporting operating leases in PR19 business plans. We have used the adjustment to operating costs that the company proposed in its business plan.

Table 3.6: Totex subject to cost sharing rates – 2020-25, £ million[1]

	Water resources	Network plus – water	Network plus – wastewater	Company view
Gross totex (excluding third party costs)	264.3	1,810.4	2,514.3	5,795.8
Grants and contributions	0.0	-73.7	-119.2	-342.3
Operating leases adjustment	-0.4	-4.3	-6.4	-11.2
Net totex (subject to cost sharing)	**263.9**	**1,732.5**	**2,388.7**	**5,442.4**
Strategic regional water resource solutions[2]	14.5	10.8	0.0	0.0
Third party costs	8.5	60.8	7.5	79.2
Ex-ante cost sharing adjustment	0.0	0.0	0.0	0.0
Net totex (for financial model)	**286.8**	**1,804.1**	**2,396.2**	**5,521.6**

[1] Table 3.6 does not include pension deficit repair expenditure, as this is not included in cost sharing.
[2] The standard totex cost sharing does not apply to strategic regional water resource solution expenditure, see 'Strategic regional water resources solution appendix' for more details.

3.5 Transition expenditure

Table 3.7 sets out expenditure allowed under the transition programme. The transition programme allows companies to bring forward planned investment from 2020-25 to 2019-20, where it is efficient to do so. Although the expenditure would be incurred in 2019-20, for the purpose of cost performance incentives it is considered as expenditure incurred in the following regulatory period (2020-25).

We allow costs when reasonably justified in order to make efficient use of resources to minimise whole life costs, where it is efficient or in customers' interests to bring forward an investment, or to enable companies to meet early statutory deadlines.

Table 3.7: Summary of wholesale water and wastewater requested and allowed transitional capex expenditure 2019-20, (£ million, 2017-18 CPIH deflated prices)

	Company requested expenditure	Our allowed expenditure	Rationale
Wholesale water	21.4	19.8	We accept the transition expenditure related to the investments in raw water deterioration, resilience and network interconnectivity either because the company has early obligations to meet or intends have an early start for delivering its water resources management plan programme. The investment in security of network and information systems compliance has no early delivery dates nor is it a large investment that requires planning and has therefore been disallowed.
Wholesale wastewater	26.3	11.6	We accept the transitional investment relating WINEP due to early obligations or proposals of early planning for the investments. We disallow the investments in growth and first time sewerage schemes because these are routine investments with no early statutory deadlines in the next regulatory period to be met.

3.6 Residential retail

We determine the residential retail control from the expenditure set out in Table 3.8, using an econometric modelling approach to set our allowance. The residential retail draft determination does not include any of our allowed pension deficit recovery costs. These costs have been wholly allocated to wholesale controls.

Table 3.8: Expenditure, residential retail, 2020-25 (£ million, nominal)

	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Residential retail	80.1	80.1	80.1	80.1	80.1	400.4
Company view	77.4	79.7	81.7	83.5	85.3	407.6

Note: The residential retail control is an average revenue control. Allowed cost and the associated allowed revenue is based on a forecast of the number of customers. There will be an end-of-period true up based on the actual number of connected households.

3.7 Direct procurement for customers

We set out in our PR19 methodology that we expect company business plans to consider direct procurement for customers where this is likely to deliver the greatest value for customers. Direct procurement for customers promotes innovation and resilience by allowing new participants to bring fresh ideas and approaches to the delivery of key projects. Companies were to consider direct procurement for customers for discrete, large-scale enhancement projects expected to cost over £100 million, based on whole-life totex.

There is sufficient evidence that a proposed South Lincolnshire reservoir, or a similarly sized alternative scheme, would be suitable for delivery by way of a direct procurement for customers process, while both the North Fenland transfer scheme and Pyewipe non-potable reuse scheme are likely to offer greater value for customers if delivered through a traditional in-house procurement process. However, we are unconvinced by Anglian Water's assessment that the Elsham treatment and transfer scheme would offer greater value for customers if delivered through a traditional in-house procurement process.

We expect Anglian Water to develop the Elsham treatment and transfer scheme, and the Anglian Water to Affinity Water transfer and reservoir scheme identified in its 'Joint statement on strategic solution development' dated 25 March 2019 which incorporates the South Lincolnshire reservoir scheme, which is discussed further in the 'Strategic regional water resource solutions' appendix, through a direct procurement for customers process. This would include a review of detailed costs and commitments and market-testing prior to procurement, to ensure that customers receive the best value. We have allowed efficient costs for the progression of the South Lincolnshire reservoir and Elsham treatment and transfer schemes under a direct procurement for customers' process.

Under direct procurement for customers the need to create regulatory mechanisms to manage uncertainty as a result of change is recognised. If a change in external factors dictates that a scheme no longer demonstrates value for money through

direct procurement for customers, a scheme may pass from direct procurement for customers back to a traditional in-house procurement process.

Where we expect companies to develop projects through a direct procurement for customers process at the final determination stage, we propose to include an uncertainty mechanism in final determinations which, unless a scheme is deferred to a future price control, facilitates the transfer of a scheme back into the traditional in-house model to ensure timely delivery.

Our preferred uncertainty mechanism in those circumstances would be a Notified Item detailed in a company's final determination and which could, subject to relevant thresholds, trigger an interim determination.

The uncertainty mechanism would only apply in respect of a scheme where there was an agreed need and the scheme had been approved by Ofwat.

We discuss both the uncertainty mechanism and licence changes which we consider necessary to facilitate the delivery of direct procurement for customers schemes, further in 'Delivering customer value in large projects'.

4 Calculation of allowed revenue

This section sets out the calculation of allowed revenue for each of the price controls, based on our assessment of efficient costs. We set out in section 4.1 the components of allowed revenue for each of the price controls. We then set out information relevant to the calculation of the components of that allowed revenue in sections 4.2 and 4.4.

4.1 Allowed revenue

We calculate revenue separately for each of the wholesale controls and for the residential retail control. We set out the calculation of five year revenues for each of these controls in this section.

Wholesale controls

For the wholesale controls (that is water resources, water network plus, wastewater network plus and bioresources), allowed revenue is calculated based on the following elements, not all elements are applicable to all wholesale controls as set out in Table 4.1.

- Pay as you go (PAYG) – this reflects the allocation of our efficient totex baseline to costs that are recovered from revenue in 2020-25. The proportion of totex not recovered from PAYG is added to the regulatory capital value (RCV) which is recovered over a longer period of time.
- Allowed return on capital – this is calculated based on our assessment of the cost of capital multiplied by the average RCV for each year.
- RCV run-off – this reflects the amount of RCV that is amortised from the RCV in the period of the price control.
- PR14 reconciliations – this reflects the application of out/underperformance payments from PR14 through revenue adjustments in 2020-25.
- Corporation tax allowance – this is estimated from projected corporation tax rates, profit forecasts and assumed levels of tax relief contained in our financial model for the draft determination.
- Grants and contributions – this represents revenue that we expect to be received from developers in respect of work undertaken by companies to service new developments. It will include income from connection charges and infrastructure charges. This does not necessarily agree to the total grants and contributions deducted from totex, as only the income relating to the price control is included here.

- Non-price control income – income from charges excluded from the price controls. For example, this includes bulk supplies, standpipes, unmeasured cattle troughs, and other services. We deduct the forecast income from these charges from the allowed revenue, because costs relating to these charges are included in the calculation of allowed revenue.
- Revenue re-profiling – this reflects the change in revenue in 2017-18 prices as a result of adjustments made to annual revenues to smooth the final bill profile consistent with customer preferences. The financial model calculates revenue adjustments on a net present value (NPV) neutral basis.

We set out the calculation of the allowed revenue for Anglian Water's wholesale controls in Table 4.1. We summarise the total of the build-up of allowed revenue as five year totals, however our financial model calculates the allowed revenue on an annual basis for the purposes of our draft determination. We state the allowed revenue for each price control on an annual basis in section 6.

We explain how we calculate PAYG, RCV run off and the allowed return on cost of capital in section 4.2, the revenue adjustments for PR14 reconciliations in section 4.3, and other elements of allowed revenue in section 4.4.

Table 4.1: Calculation of allowed revenue (£ million)

	Water resources	Water network plus	Wastewater network plus	Bioresources	Total	Company view - total
Pay as you go	201.8	880.3	950.0	273.4	2,305.5	2,882.6
RCV run-off	55.7	587.5	1,174.3	96.0	1,913.5	1,974.9
Return on capital	29.4	390.2	598.1	40.7	1,058.4	1,191.9
Revenue adjustments for PR14 reconciliations	0.0	19.8	6.7	0.0	26.5	21.3
Tax	0.0	0.0	0.0	0.0	0.0	0.0
Grants and contributions (price control)	0.0	73.7	113.3	0.0	186.9	334.6
Deduct non-price control income	-16.9	-38.9	-6.1	-2.1	-64.1	-64.1
Revenue re-profiling	0.3	1.9	2.9	0.4	5.5	0.0
Final allowed revenues	270.2	1,914.4	2,839.2	408.5	5,432.3	6,341.3

We set out the calculation of allowed revenue for each wholesale control on an annual basis in the 'Anglian Water - Allowed revenue appendix' in Tables 1.1 to Table 1.4.

Residential retail control

For the residential retail control, allowed revenue is calculated as:

- Retail cost to serve – this reflects our efficient view of costs per customer for the retail business.
- Net margin on wholesale and retail activities – this is calculated based on the wholesale revenue applicable to residential retail customers, plus the retail cost

to serve, with a net margin applied. Net margins are calculated excluding any adjustments to residential retail (see Table 4.2 below) – the full calculation is set out in our financial models.

- Our methodology set out an early view of the retail margin that applies for the retail price controls. This was used by Anglian Water in its business plan and is unchanged in our draft determination.

Allowed revenue for the residential retail control is set on a nominal basis and therefore we present the make-up of the allowed revenue in nominal prices in Table 4.2.

Table 4.2: Retail margins (nominal price base)

	2020-25	Company view 2020-25
Total wholesale revenue - nominal (£ million)	5,707.9	6,599.5
Proportion of wholesale revenue allocated to residential (%)	80.34%	80.20%
Residential retail costs (£ million)	400.4	407.6
Total retail costs (£ million)	4,986.3	5,700.4
Residential retail net margin (%)	1.00%	1.00%
Residential retail net margin (£ million)	50.5	57.9
Residential retail adjustments (£ million)	12.0	22.4
Residential retail revenue (£ million)	462.9	495.1

Note: retail revenue is the sum of the net margin, retail costs, and adjustments. Company view may not sum as this may include other adjustments.
Note: The proportion of wholesale revenue allocated to residential customers is provided by the company in the business plan tables. This is provided for each wholesale control separately, so although we have used the same proportions for each control as the company, our interventions on costs in each control mean that the combined proportion is slightly different.

We set out the calculation of residential retail revenue on an annual basis in the 'Anglian Water - Allowed revenue appendix' in Table 1.5.

4.2 Cost recovery now and in the long term for the wholesale controls

Our totex cost allowances are sufficient to meet an efficient company's operating and capital expenditure. Companies recover this expenditure either in period from current customers using PAYG or add it to the RCV and recover from future generations of customers using the RCV run-off rates. Consistent with our methodology, we assess how each company's choice of PAYG and RCV run-off rates reflect the levels of proposed expenditure, bill profiles, affordability and customer views relevant to the short and the long term.

To determine the allowed revenue, the PAYG rate is applied to the totex allowance for each wholesale control for each year of the price control. The proportion of the totex allowance that is not recovered in PAYG is added to the RCV and recovered from customers in future periods.

In this section we set out our approach to calculating the PAYG rates, the RCV to which the cost of capital is applied and the RCV run off rates.

PAYG

We calculate total PAYG totex for each year of each wholesale price control based on the totex allowance for each year multiplied by the relevant PAYG rate for that year. To this we add allowed pension deficit recovery costs to derive total PAYG revenue.

We summarise in Table 4.3 the average PAYG rates across 2020-25 for each wholesale control, and the calculation of total PAYG revenue. The PAYG rates shown in the Table are a weighted average across the five years 2020-25, the annual PAYG revenue and PAYG rates for each wholesale control are shown in the 'Anglian Water - Allowed revenue appendix', Tables 2.1 to 2.4.

To PAYG totex we add the allowed costs for pension deficit recovery set out in Table 3.2 to derive total amount to be recovered in 2020-25 for each price control.

Table 4.3: PAYG allowances for each wholesale control (5 year)

	Water resources	Water network plus	Wastewater network plus	Bioresources	Total	Company view - Total
Totex allowance (£ million)	286.8	1,804.1	2,396.2	328.0	4,815.0	6,021.4
Draft determination PAYG rate (%)	69.3%	47.4%	38.4%	79.7%	46.4%	
Pay as you go totex (£ million)	198.8	855.9	919.6	261.4	2,235.8	2,825.4
Pension deficit recovery cost (£ million)	3.0	24.4	30.4	12.0	69.8	57.2
Total pay as you go (£ million)	201.8	880.3	950.0	273.4	2,305.5	2,882.6
Company plan PAYG rate (%)	71.1%	46.9%	38.5%	79.7%		46.9%

Anglian Water's approach to PAYG rates is to recover in each year an amount equivalent to operating costs. We accept the approach taken by the company and apply a technical intervention to amend the PAYG rates proposed in the business plan to reflect our view of the mix of operating and capital expenditure following our totex interventions compared with the business plan. We set out how we apply the technical intervention in 'Aligning risk and return technical appendix' and we have published our calculation of the PAYG rates for each company alongside our draft determinations.

Overall, our view of efficient totex is lower than the company's plan and contains a lower proportion of operating expenditure than the company proposes. Therefore, using Anglian Water's approach to recovering costs, a lower proportion of totex is recovered in the period through PAYG and a higher proportion is added to the RCV. We are not intervening on PAYG rates on the basis of financeability and make no further adjustments to the PAYG rates.

Opening RCV adjustments

As part of the business plan Anglian Water proposed allocations of the RCV for both Water Resources and Bioresources price controls based on Ofwat guidance. We are allocating the company's RCV between the existing wholesale controls and these new controls in accordance with the proportions proposed by Anglian Water.

We make reconciliation adjustments ('midnight adjustments') related to the company's performance against incentive mechanisms from previous price reviews and for land sales in order to determine the opening RCV for the period of the PR19 controls. We also adjust the RCV upwards to reflect a change in the accounting treatment of leases, which causes some assets formerly recognised as operating leases to be recognised on the company's balance sheet. In doing so, we have followed the approach set out in IN 18/09 Guidance for reporting operating leases in PR19 business plans. We have used the adjustment proposed in the company business plan.

Table 4.4: Opening RCV, 1 April 2020 (£ million)

	Water resources	Water network plus	Wastewater network plus	Bioresources
RCV – 31 March 2020	3,009.3		4,916.9	
% of RCV allocated by control	6.61%	93.39%	93.57%	6.43%
RCV – 31 March 2020	198.9	2,810.3	4,600.8	316.1
Midnight adjustments to RCV	-6.3	-88.6	-234.2	0.0
Midnight adjustments relating to operating leases	0.7	7.3	10.9	4.4
Opening RCV – 1 April 2020	193.4	2,729.0	4,377.5	320.5

Return on capital

Companies are allowed a return on the RCV, equal to the Weighted Average Cost of Capital (WACC).

Our PR19 methodology set out an 'early view' cost of capital for all wholesale controls. Anglian Water's business plan incorporates the early view cost of capital for the wholesale price controls of 3.30% - CPIH deflated (2.30% - RPI deflated). We have updated our view of the cost of capital for the wholesale price controls to 3.08% – CPIH deflated (2.08% – RPI deflated). We set out the basis for the updated view in

the ‘Cost of capital technical appendix’. We have used our updated cost of capital in this draft determination.

The PR19 methodology confirmed we will transition to CPIH as the primary inflation rate from 2020. At 1 April 2020, we will index 50% of RCV to RPI; the rest, including totex that is added to the RCV, will be indexed to CPIH. Table 4.5 and Table 4.6 set out the opening and closing balance for each component of RCV.

The PR19 methodology confirmed our protection of the value of the RCV as at 31 March 2020 across each of the wholesale price controls. Totex that is added to the RCV from 1 April 2020 is stated as ‘post 2020 investment’.

In determining the ‘return on capital’ revenue building block, we apply the relevant deflated cost of capital to the average RCV for the year for each component (RPI inflated, CPIH inflated and post 2020 investment). This results in a return on capital for each wholesale control over the period 2015-20 as set out in Table 4.7.

Table 4.5: Opening RCV by wholesale control for each component of RCV, 1 April 2020 (£ million)

	Water resources	Water network plus	Wastewater network plus	Bioresources	Total
RPI inflated RCV	96.7	1,364.5	2,188.8	160.3	3,810.2
CPIH inflated RCV	96.7	1,364.5	2,188.8	160.3	3,810.2
Other adjustments	-	-	-	-	-
Total RCV	193.4	2,729.0	4,377.5	320.5	7,620.4

Table 4.6: Closing RCV by wholesale control for each component of RCV, 31 March 2025 (£ million)

	Water resources	Water network plus	Wastewater network plus	Bioresources	Total
RPI inflated RCV	78.6	1,171.1	1,769.1	123.2	3,142.0
CPIH inflated RCV	75.0	1,117.8	1,688.5	117.6	2,998.9
Post 2020 investment	76.2	860.3	1,315.3	56.9	2,308.9
Other adjustments	-	-	-	-	-
Total RCV	229.8	3,149.3	4,772.9	297.8	8,449.8

Table 4.7: Return on capital by wholesale control for each component of RCV, 2020-25 (£ million)

	Water resources	Water network plus	Wastewater network plus	Bioresources	Total
RPI inflated RCV	9.1	131.9	205.5	14.7	361.2
CPIH inflated RCV	13.2	190.5	296.9	21.2	521.8
Post 2020 investment	7.1	67.8	95.7	4.8	175.4
Other adjustments	-	-	-	-	-
Total return on capital	29.4	390.2	598.1	40.7	1,058.4
Company view – total return on capital	32.0	448.5	664.7	46.7	1,191.9

Note: Total return on capital is calculated by multiplying the annual average RCV for each element of RCV (RPI inflated, CPIH inflated and post 2020 investment) by the wholesale WACC for each control. The return on capital for each year of the price control for each wholesale control are shown in the 'Anglian Water - Allowed revenue appendix' in Tables 3.1 to 3.16 and 4.1 to 4.4.

RCV run-off

RCV run off is the proportion of the RCV which is recovered in the 2020-25 period. Companies are able to propose different run off rates for RPI inflated and CPIH inflated RCV and also, for the water resources and bioresources controls, for post 1 April 2020 investment. Table 4.8 sets out the resultant RCV run off revenue for each component of RCV for each wholesale control.

Table 4.8: RCV run off on the RCV (5 year) (£ million)

	Water resources	Water network plus	Wastewater network plus	Bioresources	Total
CPIH inflated RCV	21.7	246.7	500.3	42.6	811.3
RPI inflated RCV	22.3	253.0	512.8	43.7	831.8
Post 2020 investment	11.7	87.8	161.2	9.6	270.4
Total RCV run off	55.7	587.5	1,174.3	96.0	1,913.5
Company view – total RCV run off	56.0	618.3	1,199.9	100.8	1,974.9

Note: Total RCV run off is calculated by multiplying the opening RCV by the relevant RCV run off rate for each element of RCV (RPI inflated, CPIH inflated and post 2020 investment) by the RCV run off rate for each control (50% of run off is applied to post 2020 investment in the year of additions).

Anglian Water's RCV run off rates are based on its assessment of a fair and reasonable allocation across years of costs that have been capitalised to RCV drawn from a range of evidence. Such evidence includes depreciation based on statutory reporting, current cost accounting and estimates for enhancement expenditure along with evidence from historical and forecast levels of capital maintenance expenditure.

The company proposes an adjustment to reduce RCV run off rates for water resources, water network plus and wastewater network plus controls of between 0.44 per cent and 0.59 per cent. This is a smaller adjustment than applied at PR14 and the company sets out that this provides a gradual transition to removing the adjustment completely at PR24.

We accept Anglian Water's RCV run off rates for the draft determination. However, the interventions to allowed totex changes the post-2020 investment added to RCV and therefore the total RCV run off. Table 4.9 sets out the average RCV run off rates across 2020-25 for each wholesale control proposed in the company's business plan and for our draft determination.

Table 4.9: RCV run off rates for each wholesale control (5 year)

	Water resources	Water network plus	Wastewater network plus	Bioresources
Original company plan (%)	4.96%	3.91%	5.06%	6.00%
Draft determination (%)	4.96%	3.91%	5.06%	6.00%

Note: RCV run off (%) reflects the average of the rates applied to the CPIH and RPI inflated RCV components across the 5 years 2020-25.

We are not intervening in RCV run off rates. The annual rates for each wholesale control are set out in the 'Anglian Water - Allowed revenue appendix' in Table 5.1 to Table 5.4.

4.3 PR14 reconciliations

In PR14, we set mechanisms to incentivise companies to do the right thing for their customers. These financial incentives cover cost efficiency, outcomes performance, revenue forecasting (wholesale and retail), customer service (the service incentive mechanism), water trading and land sales. It is important to reconcile the financial impacts of these mechanisms in PR19 to ensure that customers only pay for the service the company delivers.

We are also applying adjustments to reflect performance in the final year of the 2010 to 2015 period, which could not be fully taken into account in PR14. These adjustments apply to the RCV (the 'midnight adjustment') and revenue for the 2020-25 period. These adjustments are made in line with the 'PR14 reconciliation rulebook'.

We are publishing models for each of these reconciliations, and for the overall RCV and revenue adjustments on our website. 'Anglian Water - Accounting for past delivery actions and interventions' provides a detailed explanation of all policy interventions we are making in the models. Table 4.10 summarises our interventions. Table 4.11 sets out the resulting adjustments to revenue and the RCV. The 'Anglian Water - Accounting for past delivery appendix' sets out how these adjustments are allocated across controls and how the RCV adjustment feeds into the midnight adjustments to RCV set out in Table 4.4.

We are publishing the results of the reconciliation of the service incentive mechanism for all companies alongside the draft determinations for slow track and significant scrutiny companies in the 'Accounting for past delivery technical appendix'.

For outcome delivery incentives, the information we have used to reflect performance in 2019-20 is based on the company's latest expectations. Final figures for 2019-20 will not be able to be taken into account in PR19. We set out in the 'PR14 reconciliation rulebook' that we planned to complete the reconciliation for 2019-20 outcome delivery incentives at PR24 for 2025-30 so that we use final information.

However, most outcome delivery incentives for the 2020-25 period are in period and will have been reconciled before this date. In light of this we consider it would be more appropriate to complete this reconciliation in the autumn of 2020 and apply any change to bills for 2021-22 as part of the new in-period process. We will designate all of the financial PR14 performance commitments as being in-period for this purpose. Any adjustment between the 2019-20 forecast and actual figures should be modest and we would not expect a significant impact on bills. If, contrary to expectations the bill impact were to be more significant, we would expect companies to take measures to smooth the impact for their customers. The new PR19 mechanism to share benefits with customers from unexpected high outcome delivery incentive payments in a year will not apply to PR14 outcome delivery incentives. Instead the PR14 protection that caps the impact across the five years 2015-20 will apply.

The above applies equally to the company's 2015-20 in period outcome delivery incentives and we have used forecast information for 2018-19 and 2019-20 to reconcile these outcome delivery incentives. For the avoidance of doubt, no application is required in 2019 for in period determinations.

Table 4.10: Reconciliation of PR14 incentives, interventions (2017-18 prices, unless otherwise stated)

Incentive	Intervention(s)
Outcome delivery incentives	We are intervening to make an adjustment to the in-period outcome delivery incentive value for the 'Total to be applied at PR19' so that it includes the outcome delivery incentive values in 2018-19 (£2.060 million) and 2019-20 (£4.120 million). We do this for consistency with the other companies that have in-period outcome delivery incentives, and to reduce bill volatility in 2020-21. We are intervening to include the £0.2 million outperformance payment for performance commitment W-B1 excluded in error by the company. Overall, our interventions increase the total net performance payment at the end of the 2015-20 period from £51.857 million (£23.590 million for water, £27.204 million for wastewater and £1.064 million residential retail) to £56.825 million (£28.558 million for water, £27.204 million for wastewater and £1.064 million residential retail).
Residential retail revenue	We are intervening to round the company's modification factor figures to 2 decimal places to ensure consistency with the 'PR14 reconciliation rulebook'. We are including a figure of 3.74% for the 'Materiality threshold for financing adjustment - Discount Rate' in line with the 'PR14 reconciliation rulebook'. Overall, our minor interventions do not result in any changes to the total residential retail revenue payment at the end of the 2015-20 period which remains at - £6.059 million.
Wholesale revenue forecasting incentive mechanism	No interventions required.
Totex	No interventions required.
Land sales	No interventions required.
Service incentive mechanism	We are intervening to set Anglian Water's service incentive mechanism adjustment to +3.54% of household retail revenue to reflect its performance from 2015-16 to 2018-19. This equates to £16.357 million in total revenue over the period. This decreases revenue relative to the company's estimate of the mechanism's impact.
PR09 blind year adjustments	No interventions required.

Table 4.11: Reconciliation of PR14 incentives, 2020-25 (£ million, 2017-18 prices)

Incentive	RCV adjustments		Revenue adjustments	
	Company view	Ofwat view	Company view	Ofwat view
Outcome delivery incentives	0.0	0.0	51.9	56.8
Residential retail revenue	N/A	N/A	-6.1	-6.1
Wholesale revenue forecasting incentive mechanism	N/A	N/A	-14.1	-14.1
Totex	-159.8	-159.8	-29.3	-29.3
Land sales	-5.7	-5.7	N/A	N/A
Service incentive mechanism	N/A	N/A	26.2	16.4
PR09 blind year adjustments	-163.6	-163.6	13.4	13.4
Water trading	N/A	N/A	0.0	0.0
Total	-329.1	-329.1	41.9	37.1
Total post profiling	N/A	N/A	42.5	37.8

Note: Total post profiling is the total revenue over the period, taking account of the time value of money and the company's choices of how it wishes to apply revenue adjustments either in the first year or spread over a number of years.

These reconciliations are based on data from the 1 April company submissions. We will update these reconciliations to reflect the July data submissions for the final determinations.

4.4 Other allowed revenue

Other components of allowed revenue are:

- Corporation tax allowance – this is estimated from projected corporation tax rates, profit forecasts and assumed levels of tax relief contained in our financial model for the draft determination.
- Grants and contributions – this represents revenue that we expect to be received from developers in respect of work undertaken by companies to service new

developments. It will include income from connection charges and infrastructure charges.

- Non-price control income – this forecast income is deducted from the total allowed revenues, as this revenue is not recovered from the charges covered by the price control – but is expected to cover some of the costs included in the calculation of the price control.

Table 4.12: Calculation of other allowed revenue (£ million)

	Water resources	Water network plus	Wastewater network plus	Bioresources	Total	Company view - total
Tax	0.0	0.0	0.0	0.0	0.0	0.0
Grants and contributions (price control)	0.0	73.7	113.3	0.0	186.9	334.6
Deduct non-price control income	-16.9	-38.9	-6.1	-2.1	-64.1	-64.1

Taxation

We calculate a tax allowance reflecting the corporation tax that the company expects to pay in 2020-25. We calculate the tax allowance using our financial model based on the projected taxable profits of the appointed business and the current UK corporation tax rates and associated reliefs and allowances. Due to the level of deductions and allowances available to the company, both the company view and our view result in a zero tax allowance.

Anglian Water provided information in data tables relevant to the calculation of the expected tax charge. The information has been updated as part of the resubmission of various data tables to take account of the recent changes to capital allowances. We have accepted the information provided by the company and applied this to the draft determination.

Our interventions in other areas may impact on forecast levels of capital expenditure and in the area of new connections our assumed recovery rates may differ from what Anglian Water assumes in the business plan. The resulting impact on allowances used for the calculation of taxation has not been reflected. Where these changes result in significantly different inputs for capital allowances or tax deductions, we expect Anglian Water to identify this as part of its representations on the draft determination.

Table 4.13: Calculation of other allowed revenue (£ million) - Tax

	Water resources	Water network plus	Wastewater network plus	Bioresources	Total	Company view - total
Tax	0.0	0.0	0.0	0.0	0.0	0.0

Grants and contributions (price control)

Companies receive grants and contributions from developers towards the costs of 'new developments', expenditure to reinforce the network, and 'new connections', expenditure to connect a property, for example the meter and connection pipe. We calculate the grants and contributions receivable by applying a recovery rate to our view of new developments and new connections expenditure. This ensures that developers pay a fair share towards costs to connect new properties. We use this calculation of grants and contributions receivable from developers to ensure that the amounts billed to water and wastewater customers correctly reflect only that share of any new development spend which should be borne by them.

The recovery rates are calculated as follows:

- For water new developments we use the rate implied by the Anglian water business plan which is 66.0%; and
- For water new connections and wastewater new developments we use a rate of 100% based on our understanding of historical practice in the industry and is broadly supported by company business plans.

Table 4.14: Calculation of other allowed revenue (£ million) – Grants and contributions

	Water resources	Water network plus	Wastewater network plus	Bioresources	Total	Company view - total
Grants and contributions	0.0	73.7	113.3	0.0	186.9	334.6

Table 4.14 shows our assumed amounts of grants and contributions. Our view of new developments and new connections expenditure is lower than Anglian Water's forecast. The reasons behind the differences in our view of 'Base expenditure' are

set out above in the 'Cost allowances' section. This gives a lower view of grants and contributions than the company forecast.

For diversions activities, where companies move their assets to make way for new infrastructure, we use the company view of the associated income and assume that this represents 100% of the costs. In modelling our draft determinations we assume that all diversions income is inside the price control. For the final determinations we consider that we should make a distinction between diversions that are inside or outside the scope of section 185 of the Water Industry Act 1991. Works that are outside the scope of section 185 are, for example, works under the New Roads and Street Works Act 1991 or those associated with High Speed 2. We are yet to have sufficient data to be able to distinguish section 185 diversions from non-section 185 diversions. For the final determination we will assume diversions expenditure is inside the price control unless it relates to non-section 185 diversions. Where companies forecast diversions works outside of section 185 then they should provide details of the income relating to this, on an annual basis, in the data request that accompanies the draft determination. This should be returned with the representations to the draft determination.

Non-price control income

Non-price control income is income from the excluded charges defined in licence condition B. For example, it includes bulk supplies, standpipes, unmeasured cattle troughs, and other services. This is deducted from the total allowed revenues, as this revenue is not recovered from the charges covered by the price control – but is expected to cover some of the costs included in the calculation of the price control.

We have reviewed the company forecast of 'non-price control income' and use this in the draft determination.

Table 4.15: Calculation of other allowed revenue (£ million) – Non-price control income

	Water resources	Water network plus	Wastewater network plus	Bioresources	Total	Company view - total
Non-price control income	-16.9	-38.9	-6.1	-2.1	-64.1	-64.1

Note: negative numbers represent a deduction from the allowed revenue.

Uncertainty mechanisms

The PR19 methodology makes limited provision for companies to propose bespoke uncertainty mechanisms. Anglian Water proposed two uncertainty mechanisms in its updated business plan:

- a reconciliation mechanism to return 90% of PR19 cost allowances in case 'Amber' schemes in its WINEP do not in future receive ministerial support; and
- a reconciliation mechanism to return a share of savings on proposed growth expenditure.

We are not allowing the reconciliation mechanism in relation to WINEP schemes because Anglian Water has not provided evidence to justify the retention of 10% of the costs allowed for schemes which do not proceed. Therefore, the standard 100% reconciliation will apply in respect of Amber schemes that do not proceed.

We are not allowing the reconciliation mechanism in relation to growth expenditure. We have used growth forecasts from the Office for National Statistics for our assessment of investment requirements and Anglian Water has not provided evidence to justify a departure from the methodology.

As noted in section 3.7, we propose to set out an uncertainty mechanism in our final determination for Anglian Water in relation to costs associated with the possibility, in some circumstances, of bringing direct procurement for customers schemes back in-house. Further information on this is provided in the 'Delivering customer value in large projects' technical appendix.

5 Assurance, returns and financeability

This section sets out the accountability the company's Board has demonstrated for delivering its plan, the accuracy and consistency of the information within the plan and company proposals for aligning the interests of company management and investors with its customers. We summarise Anglian Water's response to our actions on securing confidence and assurance, including Anglian Water's proposals in response to our 'Putting the sector in balance: position statement'. We comment on the possible range of returns for the notional financial structure. We comment also on the financeability of the draft determination and any adjustments that we have made to the bill profile.

5.1 Assurance

The PR19 methodology set out that stakeholders should have confidence in the information presented in business plans. We set expectations that:

- the data and information presented in the plan must be subject to good assurance processes to ensure it is consistent and accurate; and
- a company's full Board should own, be accountable for and provide assurance of the business plan.

In the initial assessment of plans, we identified two actions in relation to Anglian Water's data tables and financial model. Anglian Water has satisfactorily responded to both of these actions as set out in its response to our actions on securing confidence and assurance.

We also had concerns with seven of Anglian Water's forward-looking Board assurance statements and included actions for the Board to provide restated assurance statements covering the areas of meeting its statutory and licence obligations, large investments, risk identification, risk mitigation, financeability, its governance and assurance processes for delivering resilience and monitoring delivery of its outcomes.

Anglian Water has since provided compliant Board assurance statements on all of these topics.

5.2 Putting the sector in balance

In July 2018 we published our 'Putting the sector in balance: position statement'. The position statement set out the steps we expect companies to take to demonstrate

they strike the right balance between the interests of customers and their investors. In summary, we expect that:

- company dividend policies for their actual financial structures and performance related executive pay policies show appropriate alignment between returns to owners and executives and what is delivered for customers[2];
- companies with high levels of gearing will share financing gains from high gearing with customers; and
- companies provide assurance and supporting evidence to demonstrate their long term financial resilience and management of financial risks for the actual financial structure.

We also encouraged companies to adopt voluntary sharing mechanisms, particularly where, for example, companies outperform our cost of debt assumptions.

Our assessment of Anglian Water's proposals is in Table 5.1.

Table 5.1: Our assessment of Anglian Water's proposals to balance the interests of customers

Issue	Our assessment
Gearing outperformance benefit sharing	Anglian Water projects gearing levels above 70% for the 2020-25 period. In its business plan Anglian Water states that it is committed to reducing gearing and has agreed to implement the default gearing benefit mechanism whenever gearing exceeds 70% in 2020-25.
Voluntary sharing mechanisms	Anglian Water has not proposed a voluntary sharing mechanism, and does not propose a company contribution to payment matching or its social tariff over 2020-25. However, it has budgeted £1 million per year for its hardship fund.
Dividend policy for 2020-25	Anglian Water confirms that it is committed to the expectations on dividend policy as set out in our 'Putting the sector in balance: position statement'. In doing so its revised business plan indicated a base dividend yield below 4.5% for 2020-25 based on its actual structure, noting its commitment to reduce gearing. The company states that the majority of dividends that flow out of the Company will be injected back as equity. It has confirmed that when setting dividend payments, the board will have due regard to regulatory targets in meeting obligations to its customers. The company has committed to publishing its dividend policy in the Annual Integrated Report and Annual Performance Report, and to explain clearly how dividends declared or paid comply with its dividend policy and how commitments to customers have been considered. It has also committed to signal changes to stakeholders. However insufficient detail has been provided on which obligations or commitments to customers will be considered, the level of performance delivery used for the assessment and how they will affect dividend payments. We expect the company to be transparent in this area, to demonstrate that in paying or

[2] We explain more fully our expectations in the 'Aligning risk and return technical appendix' that accompanies this draft determination.

Issue	Our assessment
	declaring dividends it has taken account of the factors we set out in our position statement. We expect the company to respond to this issue in its response to our draft determination.
Performance related executive pay policy for 2020-25	Anglian Water states it is committed to meet the expectations set out in our 'Putting the sector in balance: position statement'. The company has reviewed its policy for 2020-25 the details of which are: • The previous annual bonus scheme and long term incentive plan (LTIP) will be replaced by a single scheme, the Deferred Bonus Scheme • The new scheme will have three sets of measures (i) direct customer measures, including C-Mex and customer vulnerability, (ii) customer delivery measures, which will include a small number of outcome delivery incentives which customers have identified as being their priority and (iii) a customer centric measure of efficiency. • Stretching targets will, as a minimum, be based on those included in the final determination. • The remuneration committee of Anglian Water will oversee and implement the policy. They will also have discretionary powers to vary or withhold payments for any deterioration in performance and also to look at performance in the round, to ensure focus is maintained on customers' needs. • Anglian Water will continue to publish details of its policy in the company's Annual Integrated Report. Anglian Water states that it has consulted with its online community about the high level principles that it is planning to apply and 82% of customers consulted support the proposed changes. We understand that there remain a number of details to be finalised, for example details of the underlying metric and associated weightings. The proposed policy, if approved, demonstrates the company's commitment to move in the direction of the expectations set out in 'Putting the sector in balance: position statement'. We expect Anglian Water to provide an update on this in response to its draft determination. We expect Anglian Water to demonstrate that its policy on performance related executive pay demonstrates a substantial link to stretching performance delivery for customers through 2020-25. We expect the company and its remuneration committee to ensure executives have stretching targets linked to performance delivery for customers and that any further updates to the policy for 2020-25 are transparently reported to stakeholders in its annual performance report.
Financial resilience of the company's actual financial structure	Anglian Water has set out a commitment in its Board assurance statement to reduce its gearing during 2020-25 by constraining dividends through to 2025. The company's plan sets out it will retain a high level of gearing, though reducing it from 78% to around 76% by 2025. The company considers it will have limited headroom on the financial ratios associated with its current Baa1 corporate family credit rating in 2020-25, with its cost of debt constituting the main risk area. However, it says it has stress tested a 2% increase to the cost of new debt under which it would retain an investment grade rating. Anglian Water has set out its financial risk management and mitigation approaches for PR19 and committed to demonstrate financial resilience beyond 2025 in its next long term viability statement. It considers that the impact of the PR19 gearing outperformance sharing mechanism (around £40m at PR24) should not impact its credit ratings.

Issue	Our assessment
	The company has confirmed in its updated Board assurance statement that the revised business plan is financeable on the actual structure. It sets out that it has assessed financial resilience by reference to a range of potential shocks, and that its plan ensures operations are robust and finances sustainable. The Board assurance statement sets out that if business risks materialise which result in an unacceptable deterioration in the company's financial metrics, that the principal actions would include further reducing shareholder distributions, potential shareholder equity injections, reviewing the financial structure and identifying other opportunities to reduce base or financing costs. However, the company proposes to retain a high level of gearing and the assessment of financial resilience does not take account of our interventions in Anglian Water's business plan, which includes, for example, our updated view of the cost of capital, our assessment of efficient costs and our assessment of outcome delivery incentives. Each company is responsible for ensuring its capital and financial structure allows it to maintain financial resilience over the short and the long term and so we expect Anglian Water to take account of these issues in its commentary on its long term financial resilience in response to our draft determination, taking account of the reasonably foreseeable range of plausible outcomes of the final determination including evidence of further downward pressure on the cost of capital in very recent market data as we discuss in the 'Cost of capital technical appendix'. The company should provide further detail and Board assurance about its plans to maintain its long term financial resilience in the context of our draft determination, with specific reference to its high level of gearing, limited headroom in key financial ratios and risks to its credit rating. In its future reporting, we expect Anglian Water to apply suitably robust stress tests in its long term viability statements in 2020-25. We will monitor the commitments and assurances the company has provided in particular relating to its intended gearing reduction.

5.3 Return on regulatory equity

The PR19 methodology sets out that we expect companies to demonstrate a clear understanding of risk to the delivery of their business plans and to explain and demonstrate how they manage and mitigate risk. We expect companies to use Return on Regulatory Equity (RoRE) analysis to assess the impact of upside and downside risk on the basis of their notional capital structures based on a prescribed suite of scenarios using P10/P90 confidence limit values[3].

RoRE is calculated as the return on equity for the equity portion of the RCV based on our notional gearing assumption. A company's base RoRE is aligned with our allowed real post-tax cost of equity, but can differ between companies because the

[3] P90 is the performance threshold at which there is only a 10% chance of outturn performance being better. P10 is the performance threshold at which there is only a 10% chance of outturn performance being worse.

blended real cost of equity will vary according to the proportion of the RCV (and notional regulatory equity) that is indexed to RPI or CPIH[4]. The proportion of RCV (and notional regulatory equity) that is linked to RPI or CPIH will vary between companies according to factors that include the size of the investment programme, the proportion of totex that is capitalised and RCV run-off rates.

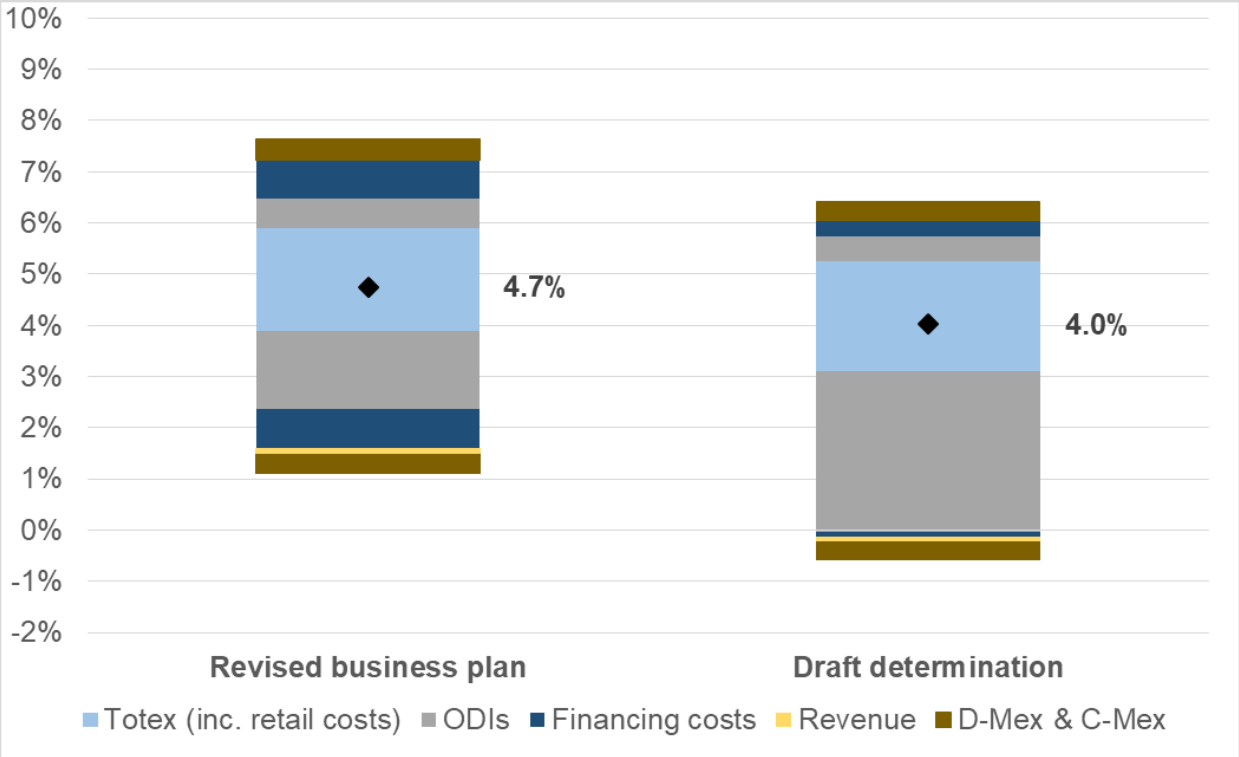
Table 5.2 sets out the annual average RoRE ranges in Anglian Water's updated PR19 business plan submission. The base RoRE in our draft determination reflects our updated cost of equity. The RoRE ranges reflect our interventions outlined below, and other interventions we are making as part of our draft determination.

Table 5.2: Anglian Water RoRE ranges

	Updated Business plan (Apr 19)		Draft determination ranges reflecting our interventions	
Base RoRE	4.7%		4.0%	
Risk ranges	**Lower bound**	**Upper bound**	**Lower bound**	**Upper bound**
Totex	-0.79%	1.06%	-0.86%	1.14%
Outcome delivery incentives	-1.58%	0.61%	-3.14%	0.47%
Financing costs	-0.76%	0.75%	-0.08%	0.31%
Retail costs	-0.07%	0.09%	-0.07%	0.09%
D-Mex & C-Mex	-0.38%	0.41%	-0.36%	0.38%
Revenues (includes Retail)	-0.11%	0.00%	-0.11%	0.00%
Total	**-3.69%**	**2.92%**	**-4.62%**	**2.39%**

[4] RPI is the retail price index; CPIH is the consumer price index including owner-occupiers' housing costs; both are published by the Office for National Statistics.

Figure 5.1: RoRE ranges



The draft determination risk ranges shown in Table 5.2 and Figure 5.1 reflect three interventions we are making for our draft determination with respect to values in Anglian Water's updated business plan:

- For the draft determination we are intervening to reduce Anglian Water's financing risk range associated with the cost of new debt to 100 bps on the upside and 25 bps on the downside. This intervention is consistent with the PR19 methodology. It is also consistent with historical data on bond issuance costs in the sector compared to our benchmark index for the cost of new debt. However, as set out in the 'Aligning risk and return technical appendix', we are considering the assessment of debt cost risk further for the final determination.
- We are intervening to adjust Anglian Water's risk range for C-Mex so that it is consistent with the retail revenue exposure limits of +/-12% applicable to this incentive.
- We are intervening to align the RoRE risk ranges for outcome delivery incentives shown in Table 5.2, Figure 5.1, and in the PR19 financial model with the RoRE risk range values for outcome delivery incentives set out in section 2 (Outcomes). The revised values reflect our interventions on outcome delivery incentives under the Outcomes Framework which seek to take account of covariance of performance on individual outcome delivery incentives in the presentation of the overall outcome delivery incentive range.

In all other areas we have retained Anglian Water's proposed RoRE range. There is a significantly negative skew overall, driven primarily by outcome delivery incentives. Our view is that an efficient company should be able to achieve the base equity return on the notional structure. We expect Anglian Water to consider necessary revisions to its overall RoRE range in response to the draft determination.

5.4 Financeability

We interpret our financing duty as a duty to secure that an efficient company can finance the proper carrying out of its functions, in particular by securing reasonable returns on its capital. In coming to our determinations we assess whether allowed revenues, relative to efficient costs, are sufficient for a company to finance its investment on reasonable terms and to deliver activities in the long term, while protecting the interests of current and future customers.

Our PR19 methodology requires companies to provide Board assurance that the business plan is financeable on both the notional and their actual capital structures. Our methodology requires companies to provide evidence to support these statements, including evidence supporting the target credit rating and that this is supported by the financial ratios that underpin the plan. Anglian Water's Board has provided assurance that, based on the assumptions in its business plan, the plan is financeable on both the notional and actual capital structure and that the plan protects customer interests in both the short and the long term. The company has assessed financeability inclusive of legacy adjustments from the previous price review period. We set out in our methodology that we assess notional financeability before making reconciliation adjustments from previous control periods to maintain the incentives on management. However, Anglian Water sets out its approach protects customers' interests and we accept its approach in these particular circumstances.

We consider that companies and their shareholders should bear the risk of their capital structure and financing choices, not customers. Therefore, we have focused on whether our draft determination is financeable based on the notional capital structure that underpins our cost of capital using our own financial model.

Our financeability assessment uses a suite of financial metrics based on those used in the financial markets and by the credit rating agencies. Based on the financial ratios from the financial model alongside evidence in the business plan, we consider that Anglian Water's draft determination is financeable for the notional structure.

The results for key financial ratios are set out below. Average key financial ratios for the notional company structure in our draft determination are broadly consistent with the ratios set out by Anglian Water in its business plan.

Table 5.3: Financial ratios – notional structure before reconciliation adjustments (5 year average)

	Business plan	Draft determinations
Gearing	61.34%	60.80%
Interest cover	3.77	3.79
Adjusted cash interest cover ratio (ACICR)	1.46	1.44
Funds from operations (FFO)/Net debt	9.19%	9.28%
Dividend cover	1.08	0.68
Retained cash flow (RCF)/Net debt	7.56%	7.24%
Return on capital employed (RoCE)	3.74%	3.48%

The basis of the calculation of the ratios is set out in the PR19 methodology

Net debt represents borrowings less cash and excludes any pension deficit liabilities.

FFO is cash flow from operational activities and excludes movements in working capital.

Cash interest excludes the indexation of index-linked debt.

Anglian Water submitted financial ratios in the business plan tables for the notional company after taking account of reconciliation adjustments. We set out in the table the ratios excluding these adjustments consistent with our assessment of notional financeability. We have confirmed the recalculation of the ratios with the company.

As set out in section 4 we have amended PAYG rates to reflect our view of efficient totex and the mix of operating and capital expenditure. We are not intervening in RCV run off rates, however interventions to allowed totex and to PAYG rates will change the level of post-2020 additions to RCV. This may affect the average RCV run off rates and result in movements between the original plan and the draft determination shown in Table 5.4. The reduction in expenditure means that the RCV will now increase by a smaller amount than set out in the original business plan.

Table 5.4: PAYG rates, RCV run off and RCV growth

	PAYG	RCV run off	RCV growth
Company plan	46.9%	4.66%	18.46%
Draft determinations	46.4%	4.67%	10.88%

Anglian Water is responsible for the financeability long term financial resilience of its actual structure. The company states it is maintaining financeability by reducing

leverage and foregoing dividend income over the price review period. We comment further on the financial resilience of the company's actual structure in Table 5.1.

We expect companies to provide further Board assurance that they will remain financeable on a notional and actual basis, and that they can maintain the financial resilience of their actual structure, taking account of the reasonably foreseeable range of plausible outcomes of their final determination including evidence of further downward pressure on the cost of capital in very recent market data as we discuss in the 'Cost of capital technical appendix'.

6 Affordability and bill profile

6.1 Bill profile

Anglian Water undertakes acceptability research in March 2019, its results show that 69% of customers find their real terms bills for 2020-25 to be acceptable (the company reports this as 91% in its business plan but this figure includes customers who give neutral responses), it does not test acceptability of nominal bills. Anglian Water's research is based on over 1000 interviews. In reporting its bill acceptability, the company includes customers who answer 'don't know' and 'don't mind' as affirmative responses, we do not regard this to be good practice as it overestimates the level of customer support. The customer challenge group notes that 'Overall, lowering bills and banning metaldehyde has increased customers' already high perception of value in Anglian Water. The majority are pleased to see bills going downwards, even if only slightly, with savings passed on to customers. Only a small minority question the data and accuracy of predictions, or found it difficult to assess the value of the decrease.'

Taking account of its acceptability results, the lack of testing for nominal bills or bill profiles and the inclusion of neutral responses in the affirmative, in the round we consider that Anglian Water provides insufficient evidence on the acceptability of its bills. We note our interventions to Anglian Water results in a significantly lower bill, with 12% reduction in draft determination and so we do not require further evidence of acceptability from Anglian Water.

The company states in its re-submitted business plan that its 2020-30 bill profile is acceptable to 91% of customers, as per its research in March 2019. The results show that acceptability over the whole 2020-30 period is actually 71% (excluding customers who responded 'don't mind' and 'neutral').

The average bill profile put forward by Anglian Water provides a bill that falls in the 2020-25 period, with a total reduction of 1.1%. Our amended profile increases this to a reduction of 12.0%. The table below sets out the difference in bills between the company's submission and our amended draft determination figures. We have adjusted the bill profile such that there is a drop in 2020-21 followed by flat bills.

Table 6.1: Bills in real terms

	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Company plan	£421	£421	£418	£418	£419	£416
Bill profile – before re-profiling	£421	£380	£377	£373	£362	£358
Draft determinations	£421	£370	£370	£370	£370	£370

In its business plan, the company sets out its intention to keep bills broadly flat in the 2025-30 period. Its bill for the 2025-30 period is acceptable to 68% of customers.

Table 6.2: Long term bills

	2020-25	2025-30
Company view of plan	£419	£421

6.2 Help for customers who are struggling to pay

Our draft determinations for Anglian Water will deliver a real terms reduction to the average bill between 2020 and 2025.

In addition, Anglian Water commits to:

- increase the capacity of its affordability support so that it can assist 475,000 customers per year;
- increase its social tariff cross subsidy to £7, as supported by customers;
- actively promote all affordability assistance and group the assistance under one brand; and
- undertake 300,000 ExtraCare affordability assessments every year, using these assessments to choose the right affordability support for each customer.

Anglian Water has four bespoke performance commitments on affordability and vulnerability, which will require it to:

- Provide support for 388,100 customers every year through affordability schemes;
- Improve customer views of value for money;

- Maintain the British Standards Institution (BSI) standard for accessible services throughout 2020-25; and
- Maintain a high rating from third party experts of the quality of its services for vulnerable customers.

Companies will be reporting their performance against the Priority Services Register (PSR) common performance commitment and their bespoke affordability and vulnerability performance commitments to us and their customers on an annual basis during the price control period. In addition, companies put forward in their business plans further measures for addressing affordability and vulnerability issues. We expect companies to report periodically to their customers on their progress in addressing affordability and vulnerability concerns. We will also be considering how we will scrutinise and report on companies' progress in this important area, including working with other stakeholders in the water sector and beyond.

6.3 Total revenue allowances and k factors

Table 6.3 summarises the allowed revenue for each control. This is expressed in a 2017-18 CPIH price base so that this can be compared with the rest of this document.

Table 6.3: Allowed revenue by year (£ million, 2017-18 prices)

	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Water resources	53.4	55.5	54.6	54.5	52.2	270.2
Water network plus	359.6	378.4	385.0	393.8	397.6	1,914.4
Wastewater network plus	536.3	551.5	565.4	580.7	605.2	2,839.2
Bioresources	82.6	83.8	82.0	80.4	79.8	408.5
Residential retail	95.9	83.2	81.9	80.7	79.4	421.2
Total	1,127.7	1,152.4	1,169.0	1,190.0	1,214.3	5,853.5

The water resources, water network plus and wastewater network plus controls are in the form of a percentage limit (inflation plus or minus a number that we determine

for each year of the control (the 'K' factor)) on the change in allowed revenue (R) from the previous charging year (t-1). This is based broadly on the formula:

$$R_t = R_{t-1} \times \left[1 + \frac{CPIH_t + K_t}{100}\right]$$

Table 6.4 sets out the K factors in each year for each of these three controls. For the first year, we have set a 'base' revenue which will be used as the starting revenue for calculating 2020-21 allowed revenues.

Table 6.4: Base Revenue and K factors by charging year (2017-18 prices)

	Base (£ million)	2020-21	2021-22	2022-23	2023-24	2024-25
Water resources	53.4	0.00%	4.10%	-1.54%	-0.21%	-4.26%
Water network plus	359.6	0.00%	5.41%	1.79%	2.32%	1.01%
Wastewater network plus	536.3	0.00%	2.94%	2.59%	2.77%	4.31%

In addition to these controls, we have set a modified average revenue control for bioresources. We recognise that a proportion of bioresources costs are fixed, so we allow for this in setting the average revenue control. The revenue control ensures that where sludge production varies the incremental change in revenues that arises is aligned to incremental costs. The 'modified average revenue' control includes a revenue adjustment factor, which applies if there are differences between the forecast and measured quantities of sludge.

To ensure companies' allowed revenues reflect their costs, we are intervening to implement a standard approach across companies to this classification. We have set out our methodology and our reasons for intervening in the appendix 'Our methodology for the classification of bioresources costs'. Further details of how we have applied the methodology to Anglian Water is set out in the 'Bioresources revenue to remunerate fixed costs – Anglian Water' model.

Table 6.5 sets out our view of the share of revenue to remunerate fixed costs.

Table 6.5: Classification of proportion of revenue to remunerate fixed costs and variable costs for bioresources

	Company view	Ofwat view based on company submitted data	Ofwat view based on draft determination
Part 1: Revenue to remunerate fixed costs £ million 2017-18 FYA CPIH deflated prices (2020-25)			
Total return on capital	N/A	46.715	40.717
Total run off	N/A	100.753	95.979
Revenue to service RCV	**N/A**	**147.468**	**136.695**
Local authority and Cumulo rates for both treatment and disposal	N/A	15.491	15.491
Fixed share of other direct costs of treatment and disposal	N/A	36.753	24.544
Fixed share of other indirect cost of treatment and disposal	N/A	40.185	26.836
Fixed PAYG revenue	**N/A**	**92.428**	**66.872**
Fixed share of revenue to cover tax	N/A	0.000	0.000
Pension deficit repair contributions	N/A	9.850	12.013
Other fixed costs	**N/A**	**9.850**	**12.013**
Revenue to remunerate fixed costs	**451.478**	**249.746**	**215.580**
Part 2: Variable revenue (£/TDS) 2017-18 FYA CPIH deflated prices (2020-25)			
Unadjusted revenue (£ million)	546.664	546.664	408.461
Revenue to remunerate fixed costs	451.478	249.746	215.580
Revenue to remunerate variable costs (£ million)	**95.186**	**296.919**	**192.881**
Forecast volume of sludge (TDS)	800,536	800,536	800,536
Variable revenue (£/TDS)	**118.903**	**370.900**	**240.940**

The modified average revenue in each year is calculated by a formula that we set out in the 'Notification of the PR19 draft determination of Price Controls for Anglian Water, which includes some components set now in this determination and some components which relate to out-turn performance (such as the actual volume of sludge in future years).

Table 6.6: Bioresources control

	2020-21	2021-22	2022-23	2023-24	2024-25	2020-25
Unadjusted revenue (£ million)	79.822	80.572	81.295	82.003	84.770	408.461
Forecast volume of sludge (TDS)	156,441	157,911	159,329	160,716	166,139	800,536
Variable revenue (£/TDS)	N/A	N/A	N/A	N/A	N/A	240.940

Ofwat (The Water Services Regulation Authority) is a non-ministerial government department. We regulate the water sector in England and Wales. Our vision is to be a trusted and respected regulator, working at the leading edge, challenging ourselves and others to build trust and confidence in water.

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