March 2020

PR19 Reconciliation Rulebook Consultation – proposed approach and policy

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About this document

This document sets out details of our proposed approach to the reconciliations that will be required during, and at the end of, the 2020-25 price control period. It provides clarity on:

- how we will make changes to companies' allowed revenue and/or RCV;
- which price controls are potentially affected; and
- when and how we will administer the process.

Our approach to reconciliation of price controls at PR19 is a significant evolution of our approach at PR14 reflecting a further development in how we undertake reconciliations, through:

- additional and better targeted reconciliations, to ensure companies' allowed revenues are appropriate; and
- more in-period reconciliations to ensure changes to allowed revenue are undertaken in a more timely way.

The rulebook comprises:

- this document, the 'PR19 reconciliation rulebook consultation – proposed approach and policy' which details our proposed approach and policy decisions relating to the reconciliations that will be required during, and at the end of, the 2020-25 price control period;
- the 'PR19 reconciliation rulebook consultation – reconciliation model guidance' which contains detailed chapters on each reconciliation model and the mechanics of how they work including inputs, outputs and calculations; and
- a series of reconciliation models which demonstrate the practical operation of the PR19 reconciliation mechanisms. These models are referred to throughout this document.

This document is structured in three sections. The first section overs the introduction and background to the reconciliations, the second covers our overview and approach to implementing the reconciliation and the third summarises our key policy decisions. It should be read alongside the 'PR19 reconciliation rulebook consultation - reconciliation model guidance' which contains a detailed chapter for each model which we will use to reconcile companies' performance over the 2020-25 period and also includes details of reconciliations that are specific to individual companies.

We ask for comments from stakeholders by 29 April 2020. We will publish our final PR19 reconciliation rulebook policy document and ‘PR19 reconciliation rulebook - reconciliation models’ by Autumn 2020 after considering consultation responses.

Contents

Responding to this consultation

This document invites comments on our proposed PR19 reconciliation rulebook consultation – proposed approach and policy.

We invite stakeholders to comment on the proposed modifications by 29 April 2020. Responses can be emailed to PR19Reconciliationrulebook@ofwat.gov.uk and copied to Cheryl.Steventon@ofwat.gov.uk or posted to:

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We will publish responses to this document on our website at www.ofwat.gov.uk. Information provided in response to this consultation, including personal information, may be published or disclosed in accordance with access to information legislation – primarily the Freedom of Information Act 2000 (FoIA), data protection legislation and the Environmental Information Regulations 2004.

If you would like the information that you provide to be treated as confidential, please be aware that, under the FoIA, there is a statutory 'Code of Practice' that deals, among other things, with obligations of confidence. In view of this, it would be helpful if you could explain to us why you regard the information you have provided as confidential. If we receive a request for disclosure of the information, we will take full account of your explanation, but we cannot give an assurance that we can maintain confidentiality in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding on Ofwat.

1. Introducing the PR19 reconciliation rulebook

1.1 The role of the reconciliation process

Water companies are monopolies. Our price reviews protect customers from potential abuse of water companies' market power. Price reviews set the price, service and incentive package for the following five year period. This sets out the allowed revenues, expected levels of service and the set of financial and reputational incentives for each company. We set out the price, service and incentive package for the 2020-25 control period in the 2019 price review (PR19) final determinations.

As part of PR19 we set a series of incentives to encourage cost efficiency and delivery of outcomes that customers want. We also set a series of reconciliation mechanisms, to ensure that risks were properly allocated between companies and their customers and that customers' interests are appropriately protected. It is appropriate to amend companies' allowed revenues for a number of reasons, for example:

- a company's performance means it is subject to outcome performance commitment outperformance or underperformance payments;
- a company has collected too much or too little revenue compared to what we have allowed;
- a change of circumstances outside of management control has affected a company's costs (such as changes in the cost of new debt) and it is appropriate for the amount of revenue it is ultimately allowed to recover to change; or
- differences between the necessary assumptions companies made about their performance in the year in which we are the setting final determinations (the so-called 'blind year', in this case 2019-20) and their actual performance.

We make these amendments to companies' allowed revenues through a 'reconciliation' process. Our reconciliations therefore form an important part of the way in which we regulate water companies. For example, the way we implement our reconciliations incentivises companies to:

- collect the right amount of revenue;
- minimise bill volatility; and
- deliver on, and potentially exceed, their stretching performance commitments.

1.2 Purpose and scope of this document

This document consults on the PR19 reconciliation rulebook. The rulebook comprises:

- this document, which details our proposed approach to the reconciliations that will be required during, and at the end of, the 2020-2025 price control period;
- the ‘PR19 reconciliation rulebook consultation – reconciliation model guidance’ which contains detailed chapters on each reconciliation model and the mechanics of how they work including inputs, outputs and calculations; and
- a series of draft reconciliation models which demonstrate the practical operation of the PR19 reconciliation mechanisms. These models are referred to throughout this document.

Our approach to reconciliations at PR19 marks a significant evolution on our approach from PR14. To be as transparent as possible we have already provided detailed information on how we would undertake the PR19 reconciliation including publishing draft reconciliation models as they have been developed during the PR19 process. This document sets out the overall process we intend to follow for both in-period and end-of-period reconciliation adjustments and brings together the overarching policy decisions on how we propose to treat issues like tax, inflation and time value of money in the reconciliation process as well as some model specific policy issues. It should be read alongside the PR19 reconciliation rulebook consultation – reconciliation model guidance which sets out the detailed design of each of the reconciliation models, explains how these models interact together and sets out further our thinking in arriving at model-specific policy decisions.

Providing companies with additional clarity on our approach to PR19 reconciliations at an early stage helps to:

- increase policy transparency by bringing together overarching policy decisions, details of each of the reconciliations and interactions;
- promote predictable regulation;
- increase confidence across the sector; and
- ensure the process is administered efficiently.

As these reconciliations require data that we do not currently collect we are publishing this consultation on the reconciliation rulebook before the Regulatory Accounting Guidelines consultation. Our Regulatory Accounting Guidelines (RAGs) define in detail the treatment of particular items (for example, revenue and interest) where Ofwat disclosure and accounting requirements differ from those normally required under UK accounting standards and applicable legislation. Companies use these guidelines to complete their annual performance report (APR). We then use the information in the annual performance report to monitor performance and to inform future policy in relation to the regulated activities. The RAGs for 2020-25 will need to ensure companies report all the information which is necessary to enable and facilitate the reconciliations. It is particularly important at this stage to ensure this provides the data to facilitate in-period reconciliations.

Table 1 lists and summarises the draft PR19 reconciliation models. It also provides links to the latest versions of the models on our website.

Table 1: Summary of the common PR19 reconciliations and links to the draft models

Reconciliation	Summary of the reconciliations' purpose
In-period reconciliations	
In-period adjustments model	This model adjusts price controls to reflect in-period outcome delivery incentives including the customer measure of experience (C-MeX) and the developer services measure of experience (D-MeX).
PR19 blind year ODI difference model	This model calculates the difference between the net outcome delivery incentives (ODIs) for 2019-20 for each price control as forecast for our PR19 final determinations and the net ODI payments for each price control that would have been calculated if actual performance for 2019-20 had been known.
PR19 revenue forecasting incentive model	This model shows how we will apply the revenue forecasting incentive (RFI). The RFI is a symmetric revenue adjustment applied in-period to reconcile any revenue under or over-recovery in an earlier year. Where differences between actual and allowed revenues are greater than 2%, the RFI applies a financial penalty. The RFI is applied to the network plus and water resources controls. Appendix 7 (wholesale revenue incentives) of our PR19 Methodology provides background information with further changes available in our PR19 final determination.
Customer measure of experience – C-MeX	The customer measure of experience (C-MeX) is designed to incentivise companies to provide excellent levels of service to their residential customers. Based on its relative performance, each company can receive outperformance or incur underperformance payments each year. Find out more information on our webpage for C-MeX and D-MeX.
Developer measure of experience – D-MeX	The developer services measure of experience (D-MeX) is designed to incentivise companies to provide excellent levels of service to their developer customers. Based on its relative performance, each company can receive outperformance or incur underperformance payments each year. Find out more information on our webpage for C-MeX and D-MeX.
Bilateral entry adjustment (BEA)	This model shows how we will adjust relevant companies' revenues should bilateral entry in the water resources market occur. Appendix 5 (water resources control) of our PR19 Methodology provides background information.
Bioresources revenue reconciliation model	This model shows how the bioresources revenue reconciliation will work over 2020-2025. It combines and simplifies the previously published 'Bioresources modified revenue model', the 'Bioresources

	in-period revenue correction model' and the 'Bioresources forecasting accuracy incentive model'. The model shows how we modify the average revenue control each year based on the difference between outturn and forecast sludge production. In addition, the model shows how we adjust allowed bioresources revenue in one year to correct for any under or over-recovery of revenue in earlier years. Finally, it also shows how we apply the bioresources forecasting accuracy incentive. Appendix 6 (bioresources control) of our PR19 Methodology provides background information.
In-period and end-of-period reconciliations	
ODI performance model	This model will determine how the outcome delivery incentives (ODI) payments that have been accrued by companies in each year of performance, based on the performance commitment set in the PR19 final determinations.
End-of-period reconciliations	
Residential retail reconciliation model	This model shows how we will reconcile residential retail revenues over the PR19 period at PR24.
PR19 Water trading incentive model	This model calculates PR19 water trading incentives for qualifying trades starting in 2020-2025.
Developer services revenue adjustment mechanism	This model is designed to reconcile developer services revenues within the network-plus control for PR19. We explain further details in 'PR19 final determinations: Our approach to regulating developer services'.
Water industry national environment programme (WINEP) reconciliation model	The purpose of this model is to account for the impact of ministerial decisions on the scale of companies' environmental enhancement programmes where this differs from our assumptions made at final determinations. Chapter 9 and Appendix 11 (Securing cost efficiency) of our PR19 Methodology and section 11.5 of our PR19 final determinations - Securing cost efficiency technical appendix provide background information.
Cost of new debt reconciliation model	This model, which is an updated version of the one which was published alongside the final methodology, will index the cost of new debt by reference to a market benchmark in 2020-25, with an end of period reconciliation adjustment
Gearing outperformance sharing mechanism	We explained our proposed default gearing outperformance sharing mechanism in our 'Putting the sector in balance' position statement, published in July 2018. We revised the mechanism in the final determination to include a glide path for the trigger, as described in the 'Aligning risk and return technical appendix', published in December 2019. This reconciliation model contains the calculations that underpin the updated mechanism.
Cost reconciliations	This is the model we will use at PR24 to reconcile actual performance against the totex allowances from PR19. An early version of this model was published on 13th December 2017.
Tax reconciliation	Our PR19 methodology introduced a tax reconciliation mechanism, which will take account of any changes to corporation tax or capital allowance rates. We will make tax reconciliation adjustments at the end of the period, at the same time as we make reconciliation adjustments in respect of the cost of debt. In order to do this we will recalculate the tax allowance for each year, to reflect changes to either the headline corporation tax rate or to the writing down allowances available on capital expenditure. To

	do this, we will rerun the PR19 financial model using the totex allowances, PAYG and RCV run-off rates (set out in the final determination).
Land sales	This model calculates the adjustment to the regulatory capital value (RCV) for any disposal of interests in land by the regulated business in the years from 2020-21 to 2024-25.
RPI-CPIH wedge reconciliation model	This is the model we will use in PR24 to reconcile for the difference between the actual RPI-CPIH (measures of inflation) wedge observed over the price control period, and the RPI-CPIH wedge included in the final determination. It calculates the annual difference in the wedge and its impact on the RCV, allowed run-off revenue and allowed return revenue. Our methodology for the 2019 price review Appendix 12 (aligning risk and return) provides background information.
Strategic regional water resources reconciliation model	This model reconciles revenue allowances for the strategic regional water resource options. The reconciliation accounts for the extent of progression of strategic options through the gated approval process. More information about our final approach to strategic options is set out in 'PR19 final determinations: Strategic regional water resource solutions appendix'.
Innovation competition	In December 2019, we confirmed our decision to make up to £200m available for innovation activities for the 2020-25 period through the introduction of an innovation competition. The model calculates the total amount of unused funds to be redistributed to individual companies' customers. This is done in line with the original allocation methodology set out in PR19 Final Determinations. This is an emerging area where we will continue to consult separately in more detail.

1.3 Policy approach

We previously published our PR14 reconciliation rulebook for the 2015-2020 period. In cases where our approach to reconciliation in PR19 represents a broad continuation of our PR14 reconciliations policy, we use the PR14 approach as the starting point and build on it to reflect the updated regulatory framework. Our PR19 reconciliation model suite is significantly wider than at PR14 and includes a number of new reconciliation mechanisms covering issues such as cost of new debt, tax and gearing outperformance.

We have developed our approach to PR19 reconciliations in a number of ways:

- the PR19 final methodology set out how we would operate the price controls, including key reconciliations relevant to the 2020-25 period;
- in some areas which we discuss in more detail below, we have further refined our approach, and where appropriate, we have introduced new reconciliations as we went through the process of making our PR19 determinations; and

- we have continued to develop, update and publish illustrative draft reconciliation models in the FAST modelling standard[1] in the period since the publication of our methodology, consulting on the draft design with companies on an ongoing basis.

1.4 Next steps

Getting in contact

We welcome your comments on our reconciliation rulebook by **29 April 2020**. This includes:

- the contents of this document;
- the contents of the 'PR19 reconciliation rulebook consultation – reconciliation model guidance' document which has further details of each model and guidance; and
- the associated draft models

Please send your comments to PR19reconciliationrulebook@ofwat.gov.uk and copied to Cheryl.Steventon@ofwat.gov.uk.

Next steps

We will publish:

- PR19 reconciliation rulebook consultation - reconciliation model guidance which should be considered alongside this document
- the associated draft models
- draft Regulatory Accounting Guidelines (RAGs) for the next control period; and
- the final PR19 reconciliation rulebook in Autumn 2020, after considering consultation responses.

Blind year adjustments

In addition, in 2020, we will consult on and publish the 2019-20 blind year reconciliation adjustments. The blind year adjustments are the adjustments for the

[1] The FAST modelling standard is the most widely adopted, independently administered financial modelling standard in use today. FAST stands for Flexible, Appropriate, Structured and Transparent models.

PR14 reconciliations that were not possible as the outturn data for 2019-20 was not known at the time of the final determination. The approach to the blind year adjustments will be based on the approach in the PR14 reconciliation rulebook with some additional detail set out in section 2.3 below. Companies will need to progress the work to prepare final data submissions for the 2015-20 price control period enabling us to calculate any applicable blind year adjustments. This process will take place in parallel to the PR19 reconciliation rulebook consultation and final publication.

The rest of this document will discuss the overview of our approach to implementing the reconciliations and key policy decisions.

2. Overview of our approach to implementing the reconciliations

This section discusses the nature of the reconciliation adjustments, an overview of the reconciliation process and how we propose implementing the blind year adjustment.

2.1 Nature of the reconciliation adjustments

Reconciliation adjustments can apply in three ways:

- In-period revenue adjustments which apply to revenues during the next control period, and in general will apply two years after the event has occurred;
- End-of-period revenue adjustments which will apply to revenues in the next control period, which runs from 2025 to 2030; and
- RCV adjustments which are applied through midnight RCV adjustments prior to the start of the next control period and recovered over time through the run off of the RCV and the recovery of the allowed return on capital on the RCV balance.

Reconciliation adjustments apply to individual price controls. There are five separate price controls that water companies may have: water resources, water network plus, wastewater network plus, bioresources and residential retail. Water and sewerage companies (WASCs) have all five price controls since they offer both water and sewerage services to customers. Water only companies (WOCs) do not have the wastewater network plus and bioresources controls since they do not provide sewerage services to customers. Welsh companies also have a separate business retail control due to the limited extent of competition for business retail customers of wholly or mainly companies in Wales.

There are also separate controls for individual companies reflecting significant investments that these companies are undertaking, including Havant Thicket Activities (for Portsmouth Water) and the Thames Tideway Tunnel (for Thames Water).

Table 2 lists the PR19 reconciliations and describes:

- whether they would lead to an adjustment to revenue, RCV or both; and
- which controls the adjustments apply to.

In the case of the end-of-period reconciliations, Table 2 is indicative only. We may review our approach in future, for example as part of setting the methodology for PR24.

Table 2: Overview of the PR19 reconciliations

Reconciliation	Adjustment	Controls affected
In-period reconciliations		
In-period adjustments model	Revenue	Water network plus, wastewater network plus, water resources and bioresources, residential retail, business retail and the Thames Tideway Tunnel
Blind year ODI difference model	Revenue and RCV	Water network plus, wastewater network plus, water resources, residential retail, business retail and the Thames Tideway Tunnel
Revenue forecasting incentive model	Revenue	Water network plus, wastewater network plus, water resources and the Thames Tideway Tunnel
Customer measure of experience – C-MeX	Revenue	Residential retail
Developer measure of experience – D-MeX	Revenue	Water network plus and wastewater network plus
Bilateral entry adjustment (BEA)	Revenue	Water resources
Bioresources revenue reconciliation model	Revenue	Bioresources
Reconciliation	**Adjustment**	**Controls affected**
In-period and end-of-period reconciliations		
ODI performance model	Revenue (in-period and end of period) RCV (end of period)	Water network plus, wastewater network plus, water resources, bioresources, residential retail, business retail and the Thames Tideway Tunnel
Reconciliation	**Adjustment**	**Controls affected**
End-of-period reconciliations		
Residential retail reconciliation model	Revenue	Residential retail
PR19 Water trading incentive model	Revenue	Water network plus and water resources
Developer services model	Revenue	Water network plus and wastewater network plus
WINEP reconciliation model	RCV	Water network plus, Wastewater network plus, water resources and bioresources

Cost of new debt reconciliation model	Revenue	Water network plus, Wastewater network plus, water resources and bioresources and Havant Thicket Activities
Gearing outperformance sharing mechanism	Revenue	Calculated at the level of the appointee. The adjustment will be made in the water network plus and wastewater network plus controls.
Cost reconciliations	RCV and Revenue	Water network plus, wastewater network plus and water resources
Tax reconciliation	Revenue	Water network plus, Wastewater network plus, water resources and bioresources and Havant Thicket Activities
Land sales	RCV	Water network plus, wastewater network plus, water resources and the Thames Tideway Tunnel
RPI-CPIH wedge reconciliation model	RCV and Revenue	Water network plus, wastewater network plus, water resources and bioresources
Strategic regional water resources reconciliation model	RCV and Revenue	Water network plus and water resources
Innovation competition	Revenue	Water network plus, wastewater network plus, water resources and bioresources

2.2 Overview of the reconciliation process

The reconciliation of incentives is, by definition, dependent on performance in previous years. The monetary impact of reconciliations will therefore change over the course of the 2020-25 period as actual data becomes available on an annual basis.

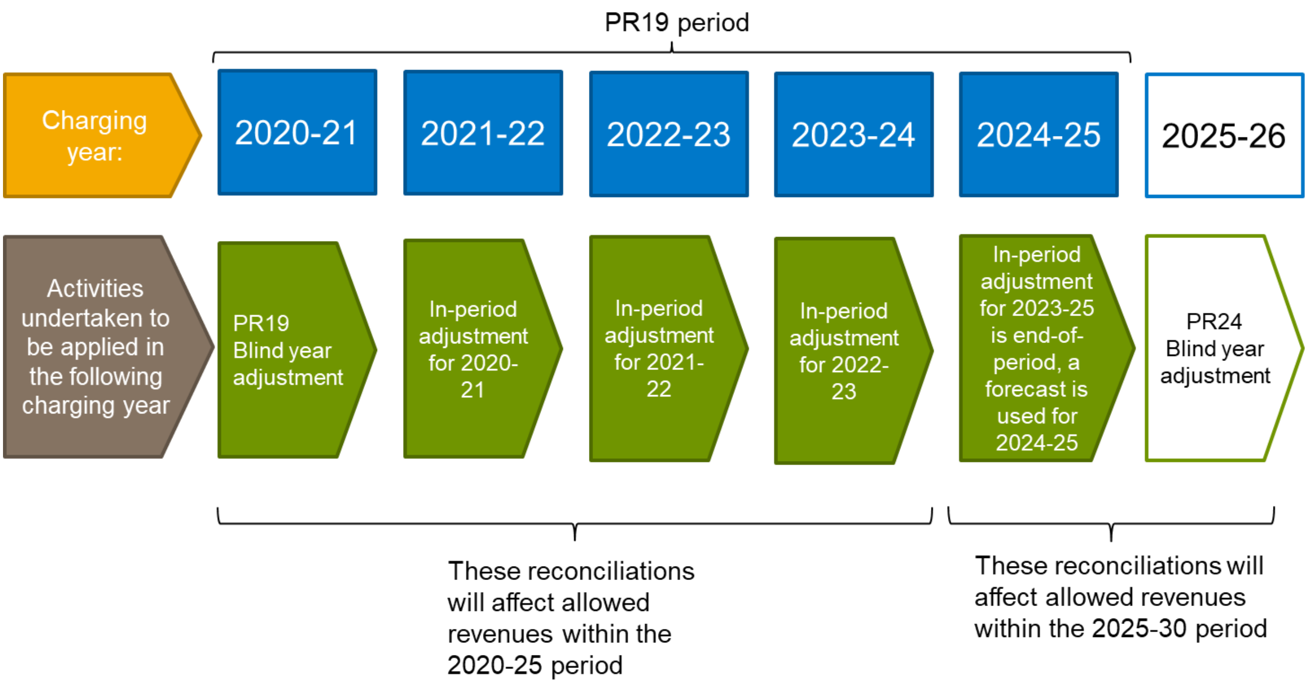
In the first year of the price control period, 2020-21, we will undertake the PR19 blind year adjustment. This will reconcile company performance in 2019-20 using the end of period reconciliations from the PR14 period, taking account of actual data which will become available in July 2020. Further details of the blind year reconciliation are set out below.

The following three charging years from 2021-23 will adjust revenues for in-period adjustments. For example, in 2021-22 we will calculate the in-period reconciliation adjustments for company performance in 2020-21. These adjustments will be applied to revenues in 2022-23. Therefore, there will be a two year lag between company performance and application of adjustments to allowed revenues. A similar process will be followed in 2022-23 and 2023-24.

In 2024-25 we will calculate the in-period adjustments that would apply for years 4 and 5 of the price control period (2023-24 and 2024-25) and the end-of-period adjustments. These adjustments will affect allowed revenues in the price control for the 2025-30 period. In 2025-26 we will adjust for the 2024-25 blind year in a similar way to the adjustments for 2019-20.

Figure 1 provides an overview of the reconciliation process for the 2020-25 period.

Figure 1: Overview of the reconciliation process[2]



The annual process

For the blind year 2019-20 and each of the first three years of the price control period (2020-21, 2021-22 and 2022-23) we will need to follow the same process for adjusting revenues through an annual revenue reconciliation process. This involves the submission of data by companies alongside the Annual Performance Report (APR) submission, requests for an in-period determination and an in-period determination published by us by 15 November setting the companies' updated price

[2] This does not include the in-period determination for ODI performance in 2024-25 which we expect will not use forecast information and instead be fully reconciled in the autumn of 2025-26.

controls for the forthcoming charging year. The last two years of the price control period (2023-24 and 2024-25) will be reconciled as part of the PR24 process which will have different timelines aligned with the wider PR24 timetable.

Table 3 gives an overview of the key dates for the reconciliations affecting revenues within the 2020-25 period. These dates are set out in companies' licences.

Table 3: Overview of the intended annual process for 2020-23

Date	Activity
By 15 July	As set out in RAG 3.11, companies must submit data as part of the APR process to Ofwat. This data will enable the reconciliation activity to take place with updates to price controls applicable from the next charging year i.e. with a two year lag.
By 15 August	In the case of in-period ODIs, if a company seeks an in-period determination, it must ask Ofwat to do so by this date. Ofwat can also make a determination on its own initiative. We encourage companies to make applications as early as possible.
By 15 November	In the case of in-period ODIs, Ofwat will make the relevant determinations by this date.

We will set out further details of this process in due course. PR19 represents a big shift to more in-period reconciliations. For example, in PR14 there were in-period ODIs only for a limited number of companies for some ODIs. Therefore, the majority of adjustments were decided on and applied at the final determination. In PR19, the majority of the ODIs will be applied in-period, which makes it important that the annual process can handle the increased volume of data reporting and greater number of key price control adjustment decisions through our annual determinations outside of price review final determinations. We welcome views from companies on the scope of this process and the best way to deliver the annual determinations in the most effective manner.

2.3 Reconciliation for 2019-20 performance (the PR19 blind year adjustment)

The PR14 reconciliation rulebook described how we would reconcile companies' performance over the 2015-2020 period against the PR14 final determinations at PR19. The PR14 reconciliations covered the following areas.

- **Outcome delivery incentives (ODIs)** – provided outperformance payments for companies that exceeded their stretching performance commitment levels, and underperformance payments for companies if performance was below their performance commitment levels. This provided incentives for companies to do the right thing for customers, the environment and wider society. We published

'Information Notice IN 16/07' about the limited circumstances in which companies could have changed their outcomes.

- **Wholesale revenue forecasting incentive mechanism (WRFIM)** - this mechanism provided financial incentives for companies to make accurate forecasts for wholesale revenue, ensuring under- and over-recovery was reconciled.
- **Wholesale total expenditure (totex) sharing** – where a company over- or under-performed on its totex allowance, this mechanism shared the over- or underspend with customers.
- **Water trading incentive** - this mechanism provided financial incentive payments to encourage new water trades to start in the 2015-20 period.
- **Residential retail revenue** – this mechanism adjusted the total revenue allowance to reflect actual customer numbers so that companies could recover their allowed costs per customer for residential retail.
- **Residential retail service incentive mechanism** - this was a financial incentive to incentivise good customer service performance relative to other companies in the sector, for residential customers.
- **Business retail service incentive mechanism** - this was a financial incentive to incentivise good customer service performance relative to other companies in the sector, for business customers. This mechanism applied only to companies operating wholly in Wales.
- **Land sales** - this mechanism adjusted the RCV to share any proceeds from disposals of interests in land equally with customers.
- **PR09 reconciliation** (PR14 blind year adjustments) - further adjustments for performance against the PR09 incentive mechanisms, to reflect the update for actual 2014-15 performance as published in 'PR14 reconciliation rulebook'. This also included the RCV adjustment in respect of correcting the treatment of inflation in the PR09 capital expenditure incentive scheme.

When setting allowed revenues for PR19 we incorporated the required adjustment for the reconciliation over the 2015-20 period. However, for the charging year 2019-20 this reconciliation was based on companies' forecasts, since outturn data was not available at that time. Therefore, we treat this year as the 'PR19 blind year'.

Our approach to the PR19 blind year will reflect the approach we took to accounting for past delivery at PR19. That is, we will apply the blind year adjustment (BYA) in the same way as we would have applied the PR14 reconciliation at PR19 if we had had the outturn data for 2019-20. We described how we would apply the PR14 reconciliation in section 12.3 of the PR19 final methodology.

In our PR14 reconciliation rulebook we said that blind year adjustments would be reflected in allowed revenues at PR24. However, since then:

- after we implemented the WRFIM, we decided to spread the PR14 blind year adjustment related to the revenue correction mechanism over the last three years of the 2015-20 period;
- we indicated to companies through our informal consultation on the revenue forecasting incentive (RFI) and illustrative published models that we would spread the PR19 blind year adjustment related to wholesale activities over the last four years of the 2020-25 period; and
- we enabled a change of approach in companies' 'Notification of the PR19 final determination of Price Controls'.

We consider that there is merit in applying blind year adjustments in a way that ensures performance is closer to the resulting revenue adjustment compared to the historical approach of application at the subsequent price review. Therefore, the revenue blind year adjustments for the wholesale control with the exception of ODI adjustments should be spread over the last four years of the 2020-25 period. It will be up to companies to elect how they want to apply the adjustments. We'll apply the PR14 residential retail blind year adjustment as an end-of-period adjustment in the PR19 residential retail reconciliation model. Since we do not adjust companies' RCV in-period, RCV adjustments will be applied at PR24.

There are three broad categories of adjustments:

- **wholesale revenue adjustments** to be applied over the last four years of the 2020-25 period and accounted for in the RFI – this includes blind year adjustments related to WRFIM, PR14 water trading incentives, and the Totex menu – and changes to price controls for the PR14 outcome delivery incentives;
- **retail revenue adjustments** to be applied as end-of-period revenue adjustments through the PR19 residential retail reconciliation model – this includes blind year adjustments related to the PR14 residential retail reconciliation model; and
- **RCV adjustments** from the Totex menu, PR14 outcome delivery incentives and land sales – because these adjust the RCV they will be applied at PR24.

In the 'Notification of the PR19 final determination of Price Controls' for each company we designated all PR14 performance commitments (including any published changes) as in period for the purposes of the blind year adjustment for 2019-20 and described the basis on which we would make a blind year adjustment to the RFI[3] for other mechanisms. Table 4 below provides more detail on our proposed application of any applicable blind year adjustments arising from the PR14 reconciliation models.

[3] This document did not describe the approach to the residential retail control, since the blind year adjustment would be incorporated into the end-of-period reconciliation.

Table 4: Summary of intended application of the blind year adjustment of PR14 reconciliations to PR19 reconciliations

	Network plus	Water resources	Residential retail	Bioresources
Revenue adjustments to be applied in 2021-22 through an in-period determination of price controls				
ODIs	Revenue adjustment	Revenue adjustment	Revenue adjustment	N/A
Revenue adjustments to be applied over the last four years of the 2020-25 period and captured within the RFI model blind year adjustment (BYA)				
WRFIM	Revenue adjustment	N/A	N/A	N/A
Water trading	Revenue adjustment	Revenue adjustment	N/A	N/A
Totex menu	Revenue adjustment	N/A	N/A	N/A
Revenue adjustments to be applied as end-of-period revenue adjustments and captured within the Residential Retail model blind year adjustment (BYA)				
Residential retail	N/A	N/A	Revenue adjustment	N/A
RCV adjustment to be applied at PR24				
Totex menu	RCV adjustment	RCV adjustment	N/A	N/A
Land sales	RCV adjustment	RCV adjustment	N/A	N/A
ODIs	RCV adjustment	RCV adjustment	N/A	N/A
Not addressed through the PR19 Blind Year Adjustment				
2010-15 Reconciliation	Not applicable as this relates to the PR14 blind year.			
SIM	Not applicable as the SIM is a non-financial incentive in the charging year 2019-20.			

Scope of Total Blind Year Adjustment (TBYA) in the RFI formula

Annex 3 to the ‘Notification of the PR19 final determination of Price Controls’ for each company sets out the RFI formula in accordance with which the “Relevant Shortfall” must be calculated for the purposes of Condition B. The price controls we have set do not prevent a company from levying charges to recover a Relevant Shortfall in the last four years of the price control period. That formula includes a blind year adjustment that will be based on the difference between a company’s forecast and actual performance for the 2019-20 charging year in relation to WRFIM and the water trading incentive (these adjustments arise from the WRFIM and water trading incentives models).

As part of our work on the PR19 reconciliation rulebook, we have identified the need to also include any applicable blind year revenue adjustment arising from the totex menu model with the aim of applying all revenue-based blind year adjustments to wholesale price controls over the last four years of the price control period. However, it is not possible for a positive revenue adjustment to be included in the calculation of a Relevant Shortfall for the purposes of Condition B without a further licence modification to change the scope of the blind year adjustment for the purposes of the notified RFI formula. Therefore, we have identified three options to address this issue:

- Amend the scope of the blind year adjustment term in the RFI formula to include the revenue blind year adjustment arising from the totex menu model through a licence modification;
- Retain the current scope of the blind year adjustment in the RFI formula and reconcile for the revenue blind year adjustment arising from the totex menu model at PR24; and
- Change the scope of the blind year adjustment for the purposes of reconciliation in the RFI model but ensure that this additional reconciliation does not affect the size of potential penalties for under or over-recovery of revenue beyond the 2% deadband, reflecting that there will be a limit to the extent to which companies will be entitled to recover any positive revenue adjustment during the price control period in the absence of a licence modification updating the formula.

If we were to make a licence modification we could also amend the scope of the blind year adjustment term in the RFI formula to include an adjustment for any unambiguous revenue errors in relation to our final determinations of price controls. This would allow us to reflect any such errors in the calculation of the blind year adjustments, which we will consult on, instead of waiting until PR24 to make any adjustment. For such an approach to be practicable companies would need to notify us as soon as possible (and in any event by no later than the submission of annual performance reports this year) about any relevant unambiguous errors, whether or not they are in the company’s favour.

We welcome views on the three possible options to address the totex menu model issue and whether, if the scope of the blind year adjustment term in the RFI formula was amended, that amendment should be extended to include an adjustment for any unambiguous revenue errors in relation to our final determinations of price controls.

Blind year in-period determination for ODIs

In the PR19 final determinations we designated all PR14 performance commitments as in-period for the purposes of the blind year adjustment for 2019-20. We set out that we would make an adjustment based on the difference between the revenue we allowed based on forecast performance in 2019-20 and what it would have been if actual performance in 2019-20 had been known.

Where forecasts are reasonably accurate this will be a relatively simple exercise of changing the forecast performance with actual performance in the calculations used for the PR19 final determinations. However, in some cases performance may lead to a more significant change in the calculation – for instance if the company forecast to outperform its performance commitment, but actually underperforms, we will need to change the ODI rate to instead use the underperformance ODI rate.

At PR19 companies did not provide their detailed calculations at a performance commitment level in a prescribed standardised format, companies only provided the resulting payments. We completed the relevant calculations independently and where we found a difference we set out our calculation in detail in the ODI model that we published on our website with the final determinations.

To increase the transparency of this exercise we propose that companies use the new ODI performance model for the 2020-25 period (see section 2.3 in 'PR19 reconciliation rulebook consultation - reconciliation model guidance'). This includes standardised calculations that will be applicable for most ODIs. We will provide two versions of this model for companies to complete:

- one version for companies to include performance assumed at PR19 so that the model calculates values as at the PR19 final determinations; and
- one version with actual performance and resulting ODI payments.

We propose to work with companies to agree and finalise before June 2020 the version that they will use to reflect the assumed performance that were made at PR19. Companies should submit the revised version with actual performance alongside their annual performance report in July 2020. We will set out further details in an information notice in due course.

The outputs of these models will be used in the new PR19 blind year ODI difference model to calculate any change and inflate the results to 2017-18 prices from 2012-13 prices. These subsequent outputs can then be used in the in-period adjustments model to calculate any required adjustments to price limits (see section 2.3 in 'PR19 reconciliation rulebook consultation - reconciliation model guidance'). Companies will be able to seek to abate or defer revenue in the same way as described in that section.

Where underperformance or outperformance payments cannot be calculated using the calculations within the ODI performance model from reported performance, and must be entered into the model as a value, we have provided a pro forma for companies to set out the calculations they have used in appendix 1 of this document.

2.4 Reconciliation for 2020-25 performance (PR24 blind year adjustment)

When setting allowed revenues at PR24, we envisage using companies' most recently available forecasts related to the charging year 2024-25 since, similarly to PR19, we will not have outturn data available for this charging year. We therefore expect to treat this year as the PR24 blind year.

We do not set out our proposed approach to the PR24 blind year in this document, apart from with regards to in-period ODIs. For in-period ODIs we do not expect to make a blind year adjustment for performance in 2024-25. This is because we intend to use the in-period adjustments model to inform our in-period determination in late 2025 which will adjust allowed revenues in 2026-27. This avoids the need to set revenues for 2025-30 using forecast performance in 2024-25 and the need to make an additional subsequent blind year adjustment where outturn data becomes available.

2.5 Error correction

The reconciliations are not intended to be processes for correcting for any errors that may have impacted on our final determinations of price controls. We recognise the importance of correcting any errors as soon as practical. Therefore in section 2.3 above (under the heading 'Scope of Total Blind Year Adjustment in the RFI formula') we welcome views on whether, if the scope of the blind year adjustment term in the RFI formula was amended, that amendment should be extended to include an adjustment for any unambiguous revenue errors in relation to our final determinations of price controls.

Given the importance of regulatory certainty for both companies and customers, there is a high bar for making adjustments. We would normally only expect to consider the possibility of an adjustment in the event of unambiguous errors. We expect companies to notify us as soon as possible about any unambiguous errors they may identify, whether or not they are in the company's favour. If an unambiguous error is identified, we will consider if a correction is necessary and how it should be made.

3. Key policy decisions

This section discusses some key overarching policy decisions we have taken when deciding how to treat a number of key policy issues for the purposes of the PR19 reconciliation models.

This section does not cover issues that have already been consulted on as part of our PR19 final methodology or over the course of PR19. Rather, it considers key specific policy issues which are material to the reconciliations but have not been consulted on previously. In addition, the section covers cross-cutting policy issues relevant to all of the PR19 reconciliations in relation to the application of time value of money, inflation indexation and tax.

In Table 5 below we set out a high-level summary of the reconciliation-specific policy decisions and where we have discussed our reasoning in more detail in the 'PR19 reconciliation rulebook consultation - reconciliation model guidance'.

Table 5: Summary of key policy decisions proposed for PR19 reconciliations

Model	Policy decision – (for further details please see PR19 Reconciliation Rulebook Consultation – Reconciliation Model Guidance)	More details
Cost reconciliations – revenue/RCV split	The split of the customer share of totex under and outperformance between RCV and revenue is made using the weighted average PAYG ratio of the relevant price controls over the course of the price control period, consistent with our approach to the totex menu model in PR14. For the under and outperformance on wage related totex and abstraction charges and business rates the split has been applied wholly to revenue as these are considered opex in nature.	Section 2.1
Cost reconciliations – interaction with WINEP model	In order to ensure the correct application of totex sharing taking account of companies' final confirmed WINEP programme, we will adjust the net totex baseline once the final scope of the programmes is confirmed. Updating the net totex for totex sharing baseline is essential to ensure that the model applies totex sharing on the basis of the correct baseline.	Section 2.1
Cost reconciliations – time value of money	Time value of money adjustments have been made to prior to the application of sharing rates to avoid any potential incentive to delay expenditure to later years of the price control period, or alternatively to bring expenditure forward. We are conscious that we could also consider alternative approaches such as calculating the sharing adjustment on a year by year basis, and we are interested in views on this approach.	Section 2.1
ODI performance model – aggregate sharing mechanism	The aggregate sharing threshold, whereby outperformance payments above 3% of water or wastewater regulatory equity will be shared with customers, will apply to all outperformance payments earned in a reporting year, including those that are due to be paid at the end of the 2020-25 period. We will base the aggregate sharing threshold on our final determination view of the regulatory capital value (RCV) deflated to 2017-18 prices.	Section 2.3
In-period adjustments model – abatements	Where companies decide not to receive outperformance payments, we include the ability for companies to choose to abate payments each year in the model. We expect companies to provide appropriate explanation and confirmation that it is a deliberate decision not to receive outperformance payments.	Section 2.4
In-period adjustments model – deferrals	Companies can request to defer ODI payments to a subsequent year. We will consider such requests in light of the company's expected performance and our statutory duties in the round.	Section 2.4
In-period adjustments model –	This model will apply all ODI payments (including C-MeX and D-MeX payments) for each relevant price control as in-period adjustments during the period. For the K-based controls – water resources, water network plus, wastewater network plus and the Thames Tideway Tunnel, we will update the values of K for subsequent years as well as K for the relevant year as the 'K factor' that increases or decreases wholesale price limits is based on the allowance in the previous year.	Section 2.4

application to price controls	For the average revenue controls – residential retail, bioresources and business retail – we need to adjust a fixed element of the control instead of the variable elements – **TR_t** in the residential retail model and **UR_t** in the bioresources model. For the business retail control, we will add net ODI payments to the average allowed retail cost component **rc_t** of each customer type – this will be allocated based on the forecast proportion of revenue to be collected from each customer type.	
In-period adjustments model – 2024-25 blind year	For in-period ODIs we do not expect to make a blind year adjustment for performance in 2024-25. We intend to use the in-period adjustments model to inform our in-period determination in late 2025 which will adjust allowed revenues in 2026-27. This avoids the need to set revenues for 2025-30 using forecast performance in 2024-25 and make a subsequent blind year adjustment.	Section 2.4
RFI – allocation of penalty related to wholesale water imbalances	The calculation of the penalty for the water resources and water network-plus control is based on the sum of the water resources and water network-plus controls. We would generally expect companies to allocate the penalty proportionately to the control causing the imbalance. However, we have provided discretion to companies in setting this allocation. In any case, we expect companies to provide evidence to support their decision of how they propose to allocate any applicable penalty across the water resources and water network plus controls and be clear on why they have chosen their preferred approach.	Section 2.7
RFI – penalty application in case of changes to developer services revenue	We will use a set of criteria to consider whether we should increase the RFI penalty deadband where the revenue imbalance leading to the penalty is caused by developer services being much lower than forecast in a forthcoming charging year. The criteria will include company ownership with the onus on companies to propose the basis for adjustment, materiality, focus on specific issues rather than revisiting PR19 decisions, alignment with company regulatory requirements and timeliness.	Section 2.7
PR19 Water trading incentive model – modification of existing trades	The policy intent of the PR14 water trading incentives was to encourage new transfers of water between water companies. We consider that the effect of an updated bulk supply agreement to modify an existing trade and a subsequent claim for water trading incentives from the participating exporter and importer is not aligned with this policy intent. In other words, a modification of an existing trade cannot qualify as a new trade for the purposes of claiming water trading incentives. This is consistent with the requirements set out in Trading and procurement codes – guidance on requirements and principles. In assessing future claims for PR19 water trading incentives for trades commencing in the 2020-25 price control period, we'll automatically disqualify trades which represent a modification of an existing trade.	Section 2.17
PR19 Water trading incentive model – matching forecast bulk supply revenues and the export incentive	Revenues from bulk supply charges are outside the scope of wholesale price controls. Instead, our approach is to net-off the expected revenues from bulk supply charges when determining the level of the wholesale water price controls. Where a potential new trade is not included in the relevant company's business plan, but ends up going ahead and the company is eligible for export incentives, we would net off the forecast revenues derived by the company over 2020-25 from the final awarded incentive in PR24 to take account of the fact that these revenues were not taken into account in our final determination.	Section 2.17

3.1 Time value of money

We use discount rates in our reconciliations to take account of the time value of money in different situations. These adjustments are needed in order to ensure that the various revenue adjustments are Net Present Value (NPV) neutral. In other words, the lag between the time when the company incurs the revenue differential and when our price controls apply the revenue adjustment should be taken into account by recognising the time value of money between these two time periods. There are many instances where these adjustments are relevant, such as:

- to make adjustments to allowed revenue between years – for example, if there is over-recovery of revenue in a particular charging year then allowed revenue should fall in a later year and the fall should reflect a time value of money adjustment;
- to profile allowed revenue over a number of years, for example, as we propose for some PR19 blind year adjustments; or
- when a company defers the application of outcome delivery incentive payments to a future year.

The adjustment for time value of money in the context of our price control framework is important for two main reasons:

- it is important from a company financeability perspective to ensure that companies do not bear additional financing costs; and
- to ensure water companies face no financial incentives to shift money between years in a way that is detrimental to customers.

We propose using the company-specific **wholesale allowed return on capital** as set out in the PR19 final determinations as the relevant discount rate for adjustments to the wholesale controls and the company-specific **appointee allowed return on capital** for adjustments to the retail price controls. The time value of money adjustment aims to ensure that the relevant discount rate is the best available proxy for how companies will raise financing over the course of the price control period.

In addition to applying time value of money adjustment over 2020-25, we will apply time value of money adjustments when profiling any end of period revenue adjustments over 2025-30 in line with the profiling options available in the **revenue adjustments feeder model**.

Time value of money adjustment across reconciliation models

Table 6 sets out a summary of our proposed approach to the time value of money adjustment in each reconciliation model where we intend to make this adjustment.

Table 6: Summary of the proposed approach on time value of money for each reconciliation model

Model	Proposed approach
In-period adjustments model	Do not adjust for time value of money on all payments for in-period ODIs, C-MeX and D-MeX – unless a company chooses to defer payments.
Revenue forecasting incentive (RFI) model	Adjust for time value of money, consistent with the WRFIM model.
Bilateral entry adjustment (BEA)	Adjust for time value of money – the BEA outputs to the RFI model, the time value of money adjustment is applied within the RFI model.
Bioresources revenue reconciliation model	Adjust for time value of money, consistent with RFI approach to other wholesale controls.
PR19 Water trading incentive model	Adjust for time value of money. Only change from the PR14 water trading incentive model is for exports where time value of money is used not only to discount future cash flows to start of the price control period in 2021 but also to apply a time value of money adjustment to the export incentive to 2025.
Residential retail reconciliation model	Adjust for time value of money for material differences between recovered revenue and allowed revenue beyond a 2% materiality threshold. Consistent with PR14 retail reconciliation model.
Developer services reconciliation model	Adjust for time value of money.
WINEP reconciliation model	Adjust for time value of money.
Cost of new debt reconciliation model	Adjust for time value of money.
Gearing outperformance sharing mechanism	Adjust for time value of money.
Cost sharing	Adjust for time value of money.
Tax reconciliation	Adjust for time value of money.
Land sales	Adjust for time value of money.
RPI-CPIH wedge reconciliation	Adjust for time value of money.
Strategic regional water resources reconciliation model	Adjust for time value of money from the gate that the solution does not progress further until the end of the price control period.
Innovation competition reconciliation model	Adjust for time value of money.

More details of the methodology to apply time value of money adjustments is available in the 'PR19 reconciliation rulebook consultation – reconciliation model guidance' containing the individual chapters of the reconciliation models.

3.2 Inflation

We make inflation indexation adjustments in our reconciliations for a number of reasons. For example, to:

- move money between years (such as if there is over-recovery of revenue in a particular year which means allowed revenue should fall in a following year);
- spread money over a number of years (such as our proposed approach to profiling the blind year adjustment); and
- rebase figures set in a base year e.g. 2017-18 Financial year average (FYA) CPIH deflated prices in our final determination to another price base more suitable to the relevant reconciliation; and
- deflate data submitted as part of the annual APR process which is usually in outturn (nominal) prices to a different price base more suitable to the relevant reconciliation.

Historically, we used the **retail prices index (RPI)** as the preferred measure of inflation to index price controls. In PR19, we moved to an approach where we use the **consumer prices index including owner occupiers' housing costs (CPIH)** as our preferred measure of inflation (see Appendix 12: Aligning risk and return of our PR19 methodology for background). Our move away from RPI was primarily due to its de-designation as a National Statistic, and evidence that it overstates consumer inflation. We considered CPIH to be the more legitimate index for customers, given its inclusion of housing costs (which are a significant expense for most residential customers). We also noted the Office of National Statistics' view that CPIH is its preferred inflation index.

Financial year average vs. lagged Nov-Nov CPIH inflation

Another important distinction to make beyond the relevant index to use is the distinction between the Financial Year Average (FYA) measure of inflation and the lagged November to November (Nov-Nov) measure of inflation:

- the **FYA CPIH** measure is equal to the average values of the CPIH index for each month in a charging year April-March; and
- the **lagged November to November (Nov-Nov) CPIH** measure for a charging year is based on the difference in inflation between the index value in November

in the prior charging year and the November in the immediately preceding charging year.

When indexing price controls during the price control period, it is not practical to use a contemporaneous measure of inflation such as FYA because companies need to know the actual level of inflation ahead of a charging year. That is why water companies' licences and the 'Notification of the PR19 final determination of Price Controls' for each company provide for a lagged Nov-Nov inflation measure to index price controls during the period. The main advantage is that this measure is directly observable at the time when companies set charges for the forthcoming charging year (usually the autumn prior to the charging year). This allows them to better comply with their price controls, ensuring smoother customer bill profiles and avoiding penalties e.g. under the Revenue Forecasting Incentive (RFI) due to inflation risk that is outside of their control.

To give a practical example of how the two measures operate:

- FYA CPIH – a revenue under-recovery in 2020-21 that needs to be recovered in period with a two year lag (i.e. 2022-23) will be indexed by the difference in the average monthly CPIH inflation index values for the 2020-21 financial year and the 2022-23 financial year; and
- Lagged Nov-Nov – a revenue under-recovery in 2020-21 that needs to be recovered in period with a two year lag (i.e. 2022-23) will be indexed by the difference in the monthly CPIH inflation from the year ending November 2019 to the year ending November 2021.

Inflation measure for in-period determinations

Unlike the 2015-20 period, for the 2020-25 period we will be making in-period determinations based on the performance of all 17 companies against their in-period outcome delivery incentives (ODIs).

In our previous in-period determinations we used a forecast of Nov-Nov inflation and did not correct for any difference with actual inflation. We also generally did not challenge the company's view of inflation when making this determination.

For the 2020-25 period we propose to continue to use a forecast of Nov-Nov inflation (but for CPIH instead of RPI as discussed in the previous section) and not to make any correction for differences with actual inflation because we consider the impact to be relatively minor. We will however apply a uniform Nov-Nov forecast across all companies, using the most recent Office for National Statistics (ONS) forecast available to us.

Our proposed approach

In reconciling for future performance over 2020-25, we will[4]:

- Generally use the **FYA CPIH** which is the contemporaneous measure of inflation. For example, if we are inflating a value between 2021-22 and 2022-23 then we would use the difference between the average monthly CPIH index values in the two financial years. This ensures our measure of inflation is consistent with the financial value to which it relates. In practice, this approach would be used for **end-of-period reconciliations** where we'll deflate outturn data submitted as part of the annual APR process to the price base most suitable to use in the relevant reconciliation model. Examples include the totex sharing model, strategic regional water solutions reconciliation and the developer services reconciliation model. These adjustments will be captured in allowed revenues at PR24.

- Use **lagged Nov-Nov** in **in-period reconciliations** due to the need for companies to know the actual level of inflation ahead of the charging year. Therefore, we will apply this measure in the RFI model, bioresources reconciliation model, in-period adjustments model and the Havant Thicket reconciliation model as part of the in-period determination process described in section 2.

Our proposed approach is consistent with:

- the approach we have applied for PR14 reconciliation models;
- the illustrative models we published previously; and
- companies' licences and our PR19 final determination.

3.3 Taxation

Our PR19 final methodology introduced a tax reconciliation mechanism for 2020-25, which will take account of any changes to corporation tax or capital allowance rates after we make our final determinations, as these are significant drivers of the tax allowance. We discuss our approach to this reconciliation model in the tax reconciliation section 2.14 of 'PR19 reconciliation rulebook - reconciliation models'.

However, there is a broader need to consider the tax impacts across all of the reconciliation models. In principle, each of the reconciliation models results in taxation impacts in-period over 2020-25 and end-of-period, with application over 2025-30 via the PR24 financial model. Consistent with our approach to inflation and

[4] The CPIH index values we will use will be based on the monthly ONS data publications

the time value of money adjustment, our overarching policy goal is to ensure that we are not creating incentives for companies to comply with our price controls in a way that attempts to realise a tax gain. We recognise that identifying all of those impacts is not straightforward. In addition, our price control framework is set in such a way that companies might face penalties outweighing the potential tax benefit gains. Therefore, we're implementing a proportionate approach in targeting key areas where we consider that a lack of an explicit focus on tax impacts could potentially lead to undesirable customer outcomes. We consider this strikes the right balance between unnecessary complexity and customer protection.

In general, the majority of our reconciliation models have been designed without considering tax explicitly within the model. This is driven by the fact that any tax impacts are best dealt with outside of the reconciliation models in the PR24 financial model which calculates the level of efficient tax allowance for companies over the next price control period taking account of the balance of all end-of-period reconciliation adjustments. Therefore, the detailed calculations would generally be outside the scope of this rulebook with the exception of some in-period adjustments.

However, when explaining our overall policy approach throughout this document, we think we should be clear on whether and how we will make any tax adjustments in the PR24 financial model and the basis of our decisions. This is the approach we took when consulting on the PR14 reconciliation rulebook policy document. The future PR24 financial model can then be used to implement our policy on tax on reconciliation adjustments. Table 7 below sets out the five broad categories of models in relation to tax treatment and a high-level overview of the need for tax adjustment and the rationale. The following sections consider each of the five categories separately.

Table 7: Taxation adjustments in the reconciliation models

Adjustment type made by the reconciliations	Reconciliations	Tax adjustment required?	Rationale
1. These reconciliations adjust allowed revenue during or at the end of the control period if a company over- or under-recovers in an earlier year.	RFI, bioresources revenue adjustment (excl. bioresources forecasting incentive), residential retail	No	Companies' corporation tax impacts net off between years in-period. For any balances applied as end-of-period adjustments, the implications are more complex because of the scope to claim or incur tax twice on the same reconciliation. Therefore, we do not adjust for tax on these reconciliations.
2. These reconciliations adjust allowed revenue at PR24 due to changes in costs in the 2020-25 period and we apply a tax adjustment.	Developer services model, innovation competition, cost of new debt, RPI-CPIH wedge (revenue element), tax reconciliation	Yes	We generally apply a post-tax regulatory framework. We consider a tax adjustment is required to ensure the revenue reconciliation adjustments from these models are fully taken into account for the purposes of calculating companies' efficient tax allowance in PR24. For example, we should reduce companies' efficient tax allowance at PR24 if they are subject to a negative developer services revenue adjustment.
3. The reconciliations adjust allowed revenue at PR24 due to changes in costs in the 2020-25 period and we don't apply a tax adjustment.	Totex sharing (revenue element), strategic regional water resources (revenue element)	No	We do not apply a tax adjustment to the revenue element of these reconciliations due to the possibility of claiming or incurring tax twice on the same reconciliation. For example, where the company underperforms on the proportion of totex recovered as PAYG, it realises a lower profit and a corresponding tax saving in-period. However, a percentage of the underperformance is borne by customers and allowing for tax on this underperformance through a revenue adjustment applied in 2025-30 would mean the company might be overcompensated.
4. These reconciliations make RCV adjustments at PR24 due to changes in costs or application of incentives in the 2020-25 period.	Totex sharing (RCV element), strategic regional water resources (RCV element), WINEP, land sales, End-of-period ODIs (RCV), RPI-CPIH wedge (RCV element)	Yes	We adjust the amount added to RCV so that when the RCV is run-off and recovered through revenue the total amount recovered includes an appropriate allowance for tax. Although there is a possibility that companies can claim or incur tax twice on the same reconciliation for the RCV adjustments arising from totex sharing, strategic regional

			water resources and WINEP reconciliations (see category 3 rationale), we consider that the additional complexity introduced if we want not to adjust for tax presents a disproportionate administrative burden. Therefore, the PR24 financial model will automatically apply the aggregate midnight RCV adjustment arising from all reconciliations affecting RCV and we will not apply any further tax interventions.
5. These reconciliations reward or penalise companies depending on their performance	In-period ODIs, End-of-period ODIs (revenue), C-MeX, D-MeX, water trading, bioresources forecasting incentive, gearing	Yes	We generally apply a post-tax regulatory framework. We consider a tax adjustment is required to ensure the full force of these incentives is experienced by companies. For example, we should reduce companies' tax allowance at PR24 if they are subject to a bioresources forecasting penalty.

Category 1 (RFI, bioresources revenue adjustment (excl. bioresources forecasting incentive), residential retail)

This category consists of reconciliations that adjust allowed revenue during or at the end of the control period if a company under or over-recovers revenue in an earlier year. It covers the revenue forecasting incentive (RFI), the bioresources reconciliation model (excluding the bioresources forecasting incentive) and the residential retail reconciliation model. Each of these models represents a reconciliation which tracks the company's actual revenue compared to its revenue allowances and adjusts allowed revenue in-period (for RFI and bioresources) or end-of-period (for retail) where there are imbalances.

In simple terms, companies' revenue allowances as set out in the final determination allow them to realise a forecast level of taxable profits over the course of the price control period. These profits generate an efficient tax allowance through the financial model. Therefore, our goal in considering tax implications of category 1 reconciliation models is to check the impact on companies' actual tax liability of different collection strategies.

The in-period models have an automatic adjustment in-period which helps net off tax impacts over the course of the price control period. Where the company over-recovers revenue in one year, it will realise a higher taxable profit and therefore pay more tax compared to its final determination tax allowance. However, the allowed revenue in two years will be adjusted downwards by the same amount which will ensure the company will be liable to pay less tax, compensating for the excess tax liability two years before.

The potential for tax imbalances arises in circumstances where the company systematically over-recovers or under-recovers revenue over the entire price control period. The treatment of tax is not symmetric under the two scenarios:

- When the company over-recovers on average over the course of the entire price control period, it faces a tax liability in excess of final determination tax allowances. In the absence of any further intervention, the PR24 financial model will take the over-recovery and apply a negative revenue adjustment to the relevant price controls over 2025-30 which will reduce the company's efficient corporation tax allowance. The net effect compared to a central scenario of perfect revenue recovery is that the company is liable to pay tax twice on the same revenue adjustment;

- When the company under-recovers on average over the course of the entire price control period, it faces a tax liability below its final determination tax allowances. In the absence of any further intervention, the PR24 financial model will take the under-recovery and apply a positive revenue adjustment to the relevant price controls over 2025-30 which will increase the company's efficient corporation tax allowance. The net effect compared to a central scenario of perfect revenue recovery is that the company realises a tax saving twice on the same revenue adjustment.

Therefore, we consider that the best option is not to include a tax adjustment on revenue adjustments arising from the RFI, the bioresources reconciliation model (excluding the bioresources forecasting incentive) and the residential retail reconciliation model. We recognise that our approach does not completely remove the asymmetric nature of incentives between under and over-recovery – companies would still be better off under-recovering to save on tax in-period. However, it effectively halves the incidence of any gain/loss compared to the central scenario of perfect revenue recovery. In addition, the scope for excessive under- or over-recovery is significantly reduced by the penalties imposed in the RFI for significant deviations from forecasts.

Category 2 (Developer services model, innovation competition, cost of new debt, RPI-CPIH wedge (revenue element), tax reconciliation)

This category consists of reconciliations that adjust allowed revenue at PR24 due to changes in costs in the 2020-25 period and we apply a tax adjustment. This includes developer services, RPI-CPIH wedge (revenue element), cost of new debt, innovation competition and tax reconciliations. We generally apply a post-tax regulatory framework. Therefore, we consider a tax adjustment is required to ensure the revenue reconciliation adjustments from these models are fully taken into account for the purposes of calculating companies' efficient tax allowance in PR24. For example, we should reduce companies' efficient tax allowance at PR24 if they are subject to a negative developer services revenue adjustment.

Category 3 (Totex sharing (revenue element), strategic regional water resources (revenue element))

This category consists of reconciliations that adjust allowed revenue at PR24 due to changes in costs in the 2020-25 period and we do not apply a tax adjustment. It includes the revenue adjustment components of the totex sharing and strategic regional water solutions reconciliations. Since both models apply totex sharing, the rationale behind the tax treatment is similar. Our approach is consistent with the position we took in the PR14 reconciliation rulebook.

The tax impacts of totex reconciliation are complex. In our PR19 final determination companies received a revenue allowance for tax based on forecast taxable profits. All other things being equal, the greater the revenue requirement, the greater the taxable profit and the greater the revenue allowance we provided for the payment of tax. We took into account companies' actual and forecast tax capital allowances when calculating the amount of tax that we should allow in revenue limits.

During the control period, the level of cost efficiency leads to the following outcomes compared to cost performance consistent with cost allowances in the PR19 final determination:

- underperformance leads to lower profitability and a lower tax liability. The level of underperformance is then shared with customers who bear a proportion of the underperformance; and
- outperformance leads to higher profitability and a higher tax liability. The level of outperformance is then shared with customers who receive a proportion of the outperformance.

Similar to category 1 reconciliations, there is scope for asymmetric tax treatment for any deviations from the baseline of cost performance consistent with cost allowances in the PR19 final determination:

- when companies underperform and spend more than allowed, they can effectively claim tax more than once on the same reconciliation adjustment - once in-period where they don't reach forecast profitability and save on tax and once through the end-of-period adjustment where companies receive an additional tax allowance on the customers' share of underperformance that they will bear;
- when companies outperform, they can effectively incur tax more than once on the same reconciliation adjustment - once in-period where they exceed forecast profitability and pay excess tax and once through the end-of-period adjustment where companies receive a reduced tax allowance due to the customers' share of outperformance.

The asymmetry in tax treatment has the effect of dampening incentives for cost efficiency because any outperformance against cost allowances results in an additional tax liability. In order to reduce this asymmetry, we consider that we should not apply tax adjustments to the revenue elements of these two reconciliations. It's worth noting that our analysis in this section focuses on operating expenditure under and out-performance since this is (broadly) translating into a revenue adjustment in the reconciliation models. We consider additional factors we need to take into account related to capex under and out-performance and the corresponding RCV adjustments of the two reconciliations in category 4 reconciliations below.

Category 4 (Totex sharing (RCV element), strategic regional water resources (RCV element), WINEP, land sales, End-of-period ODIs (RCV), RPI-CPIH wedge (RCV element))

This category consists of reconciliations that make RCV adjustments at PR24 due to changes in costs or the application of incentives in the 2020-25 period. This includes the RCV adjustment components of totex sharing, strategic regional water solutions, WINEP, end-of-period ODIs reconciliations and RPI-CPIH wedge. It also includes the land sales RCV adjustments. We consider that the required process to ensure we do not adjust for tax on RCV reconciliation adjustments would represent a significant administrative burden due to increased complexity and reduced transparency. It would require one of two approaches:

1) recalculation of the RCV in the PR24 financial model so as to exclude the automatic tax impact of the midnight RCV adjustment (i.e. creating a shadow RCV for tax purposes) since financial modelling normally assumes all RCV adjustments have a tax impact; or
2) adjusting relevant reconciliation models with RCV adjustments to ensure that the final RCV adjustments outputting to the PR24 financial model take account of our final policy position on tax treatment.

In the PR14 reconciliation rulebook, we noted that applying tax to RCV adjustments where we don't apply tax to revenue adjustments could distort incentives between RCV and revenue adjustments and we didn't implement it only due to the potential complexity of netting out the tax for the RCV adjustment. We stated that we might have taken a different view if a simple method can be found to net out the tax from the RCV adjustment. Under option 2 above, the PR24 financial model would pick up an adjusted RCV adjustment net of tax and apply tax again, ensuring that the net effect will be not to apply tax to the RCV adjustments.

Overall, we consider that we should compare the burden introduced by this additional process against the potential benefits. As discussed in the category 3 section, we will not adjust for tax on the revenue element of totex sharing and the strategic regional water solutions reconciliations. The effect on the capex elements translating to RCV adjustments is different since the difference in taxation is spread over the life of the asset (i.e. used in the calculation of its capital allowance) rather than simply in the year in which the additional capex is incurred. However, the direction of the tax impact is similar - the greater the level of capex, the higher the capital allowance, leading to a reduction in tax liability in-period compared to our final determination assumptions and vice versa.

Where there has been additional capex spending in period, this would increase the capital allowances claimed during the 2020-25 period above our final determination assumptions. However, the effect is relatively small as capital allowances are claimed over the longer term. This smearing of capital allowances also means that any projections of capital allowances made at PR24 will be higher as the brought forward value of the capital allowance pools will be higher. Therefore, while there is a reduction in tax liability in-period, we will take account of any potential further reduction in forecast tax liability during 2025-30 when setting the efficient tax allowance at PR24. This limits the extent to which companies can realise a tax benefit.

Overall, we consider that there is a strong case not to implement a different approach to tax treatment of RCV adjustments arising from totex sharing, strategic solutions and WINEP reconciliation models due to the additional complexity. Therefore, our preferred option is not to make any additional bespoke tax adjustments for the RCV adjustments arising from these reconciliation mechanisms. That means that the PR24 financial model will automatically apply the aggregate midnight RCV adjustment arising from all reconciliations affecting RCV and we will not apply any further tax interventions. Nevertheless, we welcome company views on the merits of the two approaches set out above.

Category 5 (In-period ODIs, End-of-period ODIs (revenue), C-MeX, D-MeX, water trading, bioresources forecasting incentive, gearing)

This category consists of reconciliations that reward or penalise companies depending on their performance. This includes:

- In-period reconciliations - the application of in-period ODIs, including C-MeX and D-MeX through the in-period adjustments model; and
- End-of-period reconciliations - end-of-period ODI revenue adjustments, the PR19 water trading incentive, bioresources forecasting incentive and gearing outperformance sharing revenue adjustments.

Our starting point in considering the tax allowance for these reconciliations is that it is required in order to achieve the full intended force of the underlying incentives. If we do not calibrate the tax treatment of the incentives, companies will face incentives that depart from the magnitudes that were envisaged when consulting on the underlying PR19 regulatory framework. To give an example, an in-period ODI which results in a positive revenue adjustment will increase the level of taxable profit in-period compared to the PR19 final determination forecast. Therefore, a tax adjustment is required in order for companies to realise the full benefit of the ODI.

There is a practical difference in the tax treatment of in-period and end-of-period incentive adjustments because of the nature of their application. Because in-period adjustments are not applied through the PR24 financial model, explicit modelling of the allowance for tax on the ODI payments within the in-period adjustments model is required in order for companies to collect the right amount of revenue annually over the course of the price control period. We provide more detail on the tax treatment and detailed application of tax adjustments of in-period ODIs in section 2.4 of 'PR19 reconciliation rulebook - reconciliation models'. For end-of-period adjustments, the PR24 financial model takes account of all the relevant incentive adjustments over 2020-25 when calculating companies' efficient tax allowance over the 2025-30 period. For example, where a company is eligible for a PR19 water trading incentive payment, it will also be eligible for the additional tax liability associated with it.

Appendix 1 – Non-standardised ODI calculation pro forma

This page includes a pro forma for companies to explain non-standardised ODI calculations. That is where the underperformance payment or outperformance payment cannot be calculated using the calculations within the ODI performance model from reported performance and must be entered into the model as a value.

Please include the calculation steps in the pro forma. For example include the following:

- performance commitment level;
- actual performance level;
- performance commitment level met (yes or no);
- outperformance or underperformance deadband;
- outperformance or underperformance cap/collar;
- performance liable to outperformance or underperformance payment;
- outperformance or underperformance incentive rate(s);
- outperformance or underperformance payment (£m, 2012-13 prices);
- any adjustment to the calculated outperformance or underperformance payment, and the reason(s) for the adjustment.

Any other information, for example:

- sub-measure performance levels and weightings; and
- if the ODI is based on a 3-year average please include the actual performance levels for the three years for which the average is calculated.

Apart from the four sub-headings, we have not included a structured layout for the pro forma – this is to allow companies to explain the calculation steps in the clearest and most appropriate way for each ODI.

Some companies have performance commitments that are effectively replicated over the different price controls (that is, multiple performance commitments that are each part of a total commitment at company level). If it would make understanding of the calculations clearer, please use one pro forma to cover all related performance commitments.

This pro forma has been structured for the 2019-20 blind year, but companies should adapt it for future in-period determinations where necessary using only sections 2 and 4 of the pro forma.

Pro forma for non-standardised ODI calculations

Water company	
Company name	
Submission date	

Performance commitment	
Performance commitment unique ID	
Performance commitment name	

1. Calculation of ODI included in the PR19 final determination (including Ofwat interventions)

2. Calculation of ODI proposed for in period determination

3. ODI summary (£m, 2012-13 prices)

#	Field	£m (2012-13 prices)
A	ODI payment included in the PR19 FD (including after Ofwat interventions)	
B	ODI payment proposed for blind year reconciliation	
C	Proposed blind year adjustment (B – A)	

4. Any other information

Glossary

Term	Acronym	Definition
Annual Survey for Hours and Earnings	**ASHE**	Annual estimates of paid hours worked and earnings for UK employees by sex, and full-time and part-time published by the Office for National Statistics.
Bioresources		Bioresources refers to wastewater sludge transport, treatment, recycling and disposal.
Blind year		The last charging year of a price review period, during which a new price review is finalised. For example, the PR19 blind year is 2019-20. It is termed the 'blind year' because outturn financial and performance data for that year is not available to use in the price review assessments and determinations. This means that forecast data is used in our final determinations, with finalised values taken into account at a later stage.
Consumer Prices Index (H)	**CPIH**	Consumer Prices Index including owner occupiers' housing costs.
FAST Standard	**FAST**	Flexible appropriate structured transparent design rules for financial modelling published by the by the FAST Standard Organisation.
Office for National Statistics	**ONS**	The Office for National Statistics is the UK's largest independent producer of official statistics and the recognised national statistical institute of the UK. It is responsible for collecting and publishing statistics related to the economy, population and society at national, regional and local levels. It plays a leading role in national and international good practice in the production of official statistics.
Weighted average cost of capital	**WACC**	The weighted average cost of capital is calculated as the cost of equity multiplied by the percentage of equity assumed for the notional company plus the cost of debt multiplied by the percentage of debt assumed for the notional company. It represents the allowed return for the providers of equity and debt finance.

Ofwat (The Water Services Regulation Authority)
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