

11 July 2017

Trust in water

Delivering Water 2020: consultation on PR19 methodology Appendix 7: Wholesale revenue incentives

**Appendix to chapter 6:
Targeted controls,
markets and innovation:
wholesale controls**

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1 Summary

In chapter 6, 'Targeted controls, markets and innovation: wholesale controls' we set out our approach to setting wholesale revenue controls for the price review 2019 (PR19). These controls will remain a key part of the way we regulate to make sure customers are protected and get secure, sustainable, and affordable water and wastewater services. This appendix focuses on our approach to network plus water and wastewater controls, which represent the majority of the wholesale value chain and will continue to be regulated as monopolies during 2020-25. Our approach to setting controls for water resources and bioresources are set out in appendix 5, 'Water resources control' and appendix 6, 'Bioresources control' respectively.

The appendix is structured as follows:

- Section 2 provides the background to the network plus controls;
- Section 3 provides an overview of how the network plus controls will work;
- Section 4 provides more detail on the key elements of our proposals and covers our approach to:
 - the treatment of developer services (section 4.1);
 - the revenue forecasting incentive (RFI) (section 4.2); and
 - water trading incentives (section 4.3).

We do not cover all the aspects of the network plus controls in this appendix. We reflect this throughout by cross referencing to other sections of the methodology document.

2 Background

Our revenue controls are an important regulatory tool, providing cost and delivery incentives that encourage companies to deliver better value for customers. In our May 2016 decision document '[Water 2020: Our regulatory approach for water and wastewater in England and Wales](#)', we set out our decision to introduce four binding wholesale revenue controls:

- water resources (see appendix 5, 'Water resources control');
- network plus water (covered in this appendix);
- network plus wastewater (covered in this appendix); and
- bioresources (sludge treatment, transport and disposal) (see appendix 6, 'Bioresources control').

This decision was confirmed by the licence change to condition B of the conditions of the appointment ('licence') of each of the 17 largest water companies in England and Wales.

Following extensive consultation and options appraisal, we stated that at PR19 we would set total revenue controls for network plus water and wastewater activities for a period of five years, continuing with the approach that we adopted at PR14 under our wholesale water and wastewater controls. Retaining total revenue controls for 2020-25 helps to provide certainty and stability for companies and investors and, when combined with wider incentives, align their interests with those of customers and the environment.

In this section we provide background on:

- the scope of the network plus controls in the licence (see section 2.1);
- the activities in the network plus control (see section 2.2); and
- the allocation of the pre-2020 RCV to network plus (see section 2.3).

2.1 The scope of the network plus controls

For each of the network plus water and wastewater controls, the licence enables Ofwat to determine:

- a single control in the same form as the existing control(s) for wholesale activities (water and wastewater), expressed as a percentage limit on the change in the charges to be levied by and/or revenues of the regulated business in each year for network plus activities;

- the percentage limit is expressed as the change in the relevant index plus or minus a factor 'K'; and
- how the appointee shall demonstrate compliance with the controls.

The activities that can be covered by the network plus controls is discussed below.

2.2 The activities in the network plus controls

The activities in the water and wastewater network plus controls include the parts of the wholesale water and wastewater businesses that remain once the activities associated with water resources and bioresources (sludge treatment, transport and disposal) – for which we are setting separate controls – are excluded. For the purposes of this appendix by 'wholesale' we mean the part of a water company's appointed business that is not designated as retail activities.

The list of activities that could be covered by the water resources and bioresources controls are set out in paragraph 2 of companies' licence condition B (under definitions of 'Water Resources Activities' and 'Bioresources Activities'). The terms used in those definitions of activities that can and cannot be designated have the meanings assigned to them in '[Regulatory Accounting Guideline \(RAG\) 4.06 - Guideline for the table definitions in the annual performance report](#)', August 2016.

Network plus water activities will be all the wholesale water activities except those designated as water resources activities. We therefore expect the activities covered by the network plus water control to include:

- raw water transport;
- raw water storage;
- water treatment; and
- treated water distribution.

Network plus wastewater activities will be all the wholesale wastewater activities except those designated as bioresources activities. We therefore expect the activities covered by the network plus water control to:

- collection of foul sewage;
- collection of customers properties' surface water;
- collection of highway's surface water;
- sewage treatment and disposal; and
- sludge liquor treatment.

We shall formally designate water resources, bioresources and network plus activities as part of the final determination process. Subject to no material new information and evidence this will confirm the activities set out above. Companies should prepare business plans on the basis that the activities listed above will have the same definitions as in RAG 4.06.

However, we might make some minor changes around the boundary if we find new evidence that informs our thinking, including from the annual performance report companies provide to us in July 2017, and in the consultation responses to the 2017-18 Regulatory Accounting Guidelines and beyond. This is a similar approach to what we adopted at PR14 when we first set the boundary between wholesale activities and retail activities.

2.3 The allocation of the pre-2020 RCV to network plus

The RCV represents the value of the capital base of each company for the purpose of setting price controls. It is used to assess the revenues that are required to provide a return on the capital invested by water companies. The introduction of separate controls for bioresources and water resources means that wholesale and water and wastewater RCV respectively, will need to be allocated between:

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

In our May 2016 decision document we set out that we would allocate the pre-2020 RCV to water resources on an unfocused approach. The remaining value of the RCV, after allocation to the water resources control, will be allocated to the network plus water control. We provide further details of the approach companies should follow in allocating its RCV to water resources control in appendix 8, 'Water resources legacy RCV allocation: initial submission'.

In our May 2016 decision document we set out pre-2020 RCV should be allocated to bioresources on a focused basis. This means the allocation of the RCV to bioresources will be based on the economic value of the assets employed. The remaining value of the RCV will be allocated to the network plus wastewater control. We provide further details in the technical guidance '[Economic asset valuation for the bioresources RCV allocation at PR19](#)' we published in April 2017.

We will confirm the allocation of RCV to the four wholesale controls as part of our PR19 final determinations.

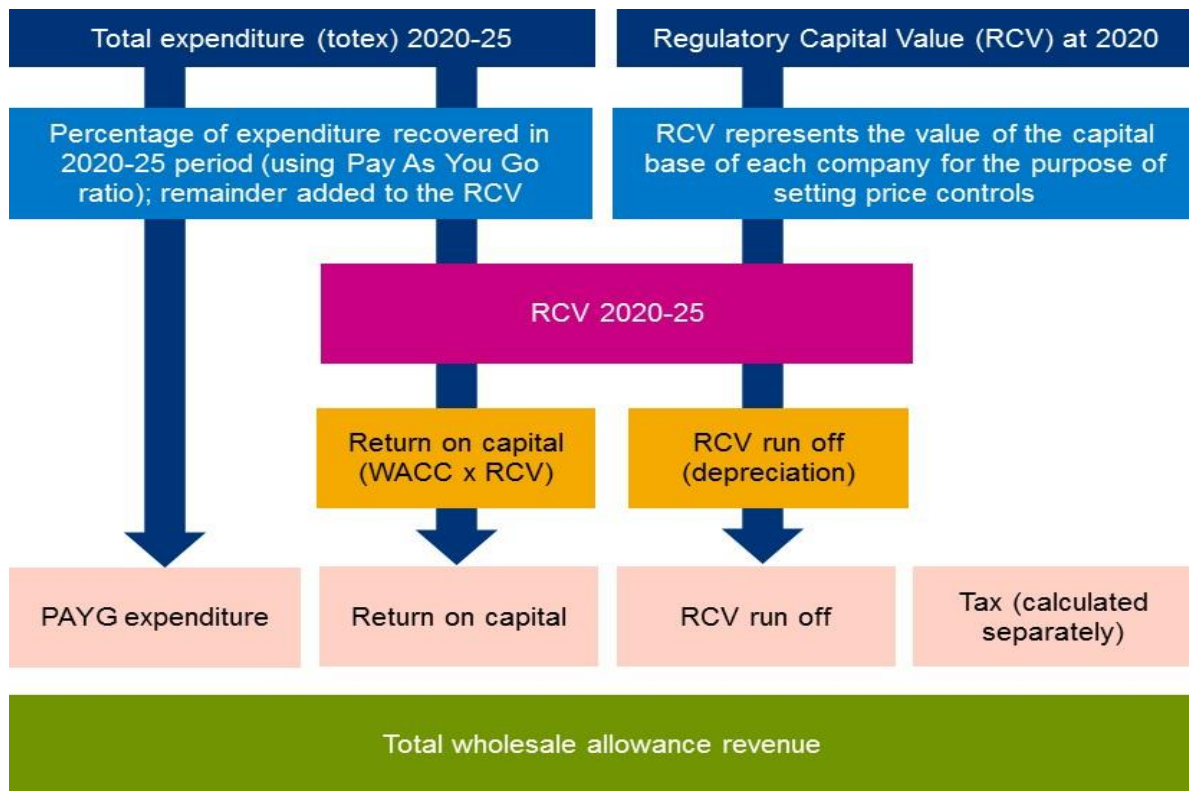
3 Overview of the network plus controls

In this section we provide an overview of the network plus water and wastewater controls. For the three key proposals presented in this section the next chapter of this appendix sets out more detail on our choice of proposal and how it will work in practice. We signpost these areas in the discussion below.

We will set the network plus controls using a building-block approach to determine the total revenue each company can earn. Our regulatory approach means that we expect companies to be able to recover costs efficiently incurred over the 2020-25 period. The figure below illustrates these building blocks, which incorporate:

- returns and depreciation of the RCV;
- an assessment of:
 - efficient totex during the 2020-25 period;
 - funding expenditure to be recovered within the period (determined by the pay as you go ratio (PAYG)); and
 - expenditure added to the RCV and recovered in future periods (through future returns and depreciation); and
- a tax allowance.

Figure 1 - Building block approach to setting wholesale revenue controls



In the first year of the control allowed revenues will be determined that meet the company’s revenue requirement. A company will be allowed to increase revenues every year by the change in the relevant index and an adjustment factor known as K. The K factor is set such that annual allowed revenues meet the annual revenue requirements.

In this appendix we set out an overview of how the network plus controls will work, with a focus on implementation, for example of the treatment of developer services. The discussion of the wider building blocks outlined above, is covered in the following chapters of the methodology document.

- Chapter 9, ‘Securing cost efficiency’, sets out our approach to assessing the efficient costs for the wholesale controls.
- Chapter 10, ‘Aligning risk and return’, discusses how we will set an appropriate return for the wholesale controls, and our approach to tax.
- Chapter 11, ‘Aligning risk and return: financeability’, sets out our approach to recovering costs, which determines the PAYG rates and RCV run-off for the wholesale controls.

We propose to extend our protection of past, efficiently-incurred investments included in the RCV, up to 31 March 2020, to ensure that all elements (whether water resource, bioresources or network plus) of the wholesale controls are given common level of protection to align with common treatment in the 2015-20 control. Beyond 31 March 2020, we are not providing further explicit commitment to protection for investments added to the RCV over and above our existing commitments. This is because our regulatory approach means that we expect companies to be able to recover costs efficiently incurred over the 2020-25 period and this approach is consistent across the network plus controls.

In addition to setting allowed revenues, we also provide incentives to encourage efficient delivery, reduction in expenditure and delivery of outcomes. Many of these are financial incentives that provide rewards and penalties for company performance over the price review period. Further details of our approach to outcomes are set out in Chapter 4, 'Delivering outcomes for customers'.

Consistent with our decision to adopt a binding control on total revenues, it is necessary to allow incumbents to carry out a reconciliation for under or over recovered revenues over 2020-25. This is to mitigate the risk of over or under recovery which could have adverse impacts on customers and incumbents. The adjustment mechanism for network plus water and wastewater will be the revenue forecasting incentive (RFI). Further details on this are provided in section 4.2.

We have also considered how we treat connection and other developer services provided by the wholesale business, and whether or not revenues and cash receipts from these services should be included within the network plus controls. As with PR14, we propose that all non-customer facing developer services and connection charges will be within the scope of the network plus revenue controls. This will be combined with an adjustment mechanism for changes in the volume of developer services over the price control period, applied at the end of the period. Further detail on our approach here is provided in section 4.1.

For water we have also reviewed our approach to water trading incentives. These were introduced at PR14 and offer financial incentives for new water trades to exporters and importers. The incentives are designed to encourage greater levels of water trading, as this has substantial benefits for customers and the environment. We propose to maintain these water trading incentives for new water trades agreed in 2020-25, subject to the same safeguards applied at PR14. Further detail on our approach here is provided in section 4.3.

4 Further detail on our proposals

Network plus activities, which represent the majority of the wholesale value chain, will continue to be regulated as monopolies at PR19. Our proposed approach continues with many of the features of the wholesale water and wastewater controls set at PR14. We have revisited our approach to three specific areas in relation to:

- the treatment of developer services (see section 4.1);
- the revenue forecasting incentive (see section 4.2); and
- water trading incentives (see section 4.3).

We discuss each of these areas in turn below, setting out the issues that we are seeking to address, the options that we have considered, the reasons for our proposed approach and more detail on how it will work in practice.

4.1 Treatment of developer services

4.1.1 What issue are we seeking to address

Developer services relate to the activities required to connect new developments to a water network. At PR14 we decided to include the developer services within the scope of the wholesale controls. This was to provide flexibility to allow the balance between connection and infrastructure charges and other wholesale charges to change in light of any future UK or Welsh Government charging guidance provided under the provisions of the Water Act 2014.

The current treatment of costs and income from services provided to developers may provide perverse incentives to companies, developers and customers. Our single till approach to setting controls disincentivises incumbent water companies to serve developers efficiently on the one hand or respond to competition on the other.

The structure of the control protects the incumbent in case the volume of new connections work is lower than forecast, and income from developer services is lower than expected, given the company will be allowed to increase its wholesale tariffs to make up the difference. It will also retain 50% of any reduction in the cost that it incurs overall.

However, if the incumbent faces a higher than expected volume of new connections work, companies will incur higher costs but is not allowed to recover increased revenues from developers to compensate. This incentivises companies to limit the

number of new connections it provides over the period. In addition, companies may have an incentive to recover a lower proportion of costs through developer contributions. A company's gross costs are a function of the volume of developer services that it provides. Even when the gross costs of the company stays the same, reallocating costs between customers and developers may provide perverse financial benefits through allowing higher revenues from wholesale charges and recovery of 50% of notional change in totex (net costs).

In our May 2016 decision document we said that we reserved the right to adjust allowed revenues in some circumstances:

“If a company increased revenue by unduly reducing connection charges we may take corrective action to ensure that companies returned these monies (with financing costs) to customers”

We similarly provided an opportunity for a company to request an adjustment to correct for higher than anticipated volumes of connections, which reduce profitability disproportionately, in terms of reducing revenues and increasing costs borne by the company that are not recovered.

For PR19, we have considered how to treat connections and other developers' services, including whether or not revenues and cash receipts from these services should be included in the total revenue controls and whether a mechanism for adjusting revenues needs to be introduced.

In the next section we highlight three options on how to treat developer services income at PR19.

4.1.2 What options have been considered

Option 1: Maintain the PR14 approach

This is no change from the approach we adopted at PR14. This would involve maintaining our current single till approach and include the developer services revenues inside the form of control for network plus. Given the total income companies can earn from all wholesale charges is fixed/capped, the incumbent would have to ensure that any change of income from developer services would be offset by a change in income recovered from other wholesale charges to customers to maintain overall revenues constant.

This option therefore relies on our ex post rather than ex ante regulatory powers and it requires that we are able to identify an undue situation. Such a scenario may continue to distort incentives with the incumbent interested to reduce contributions from developers as far as possible.

Option 2: Developer services would be treated outside the revenue control

Consistent with our recent policy development, this scenario condenses the two options we presented in the May 2016 discussion document on excluding completely or partially the developer services from the network plus controls.

We could exclude all developer services' revenues and associated totex from the network plus controls and rely on competition in provision of new connections, competition law and new charging rules to protect the interests of developers and customers. This would mean that non-contestable services would be outside the scope of price regulation. This would be similar to the approach we adopted before 2015.

Alternatively we could exclude those developer services that are most open to competition (such as new on-site infrastructure) from the network plus controls and rely on competition in self-lay, competition law and new charging rules for these services.

This approach may address some of the incentive effects to minimise the volume of new connections. However, the approach would rely on getting an appropriate allocation of cost recovery between developers and customers when setting the control. A company may face incentives to reflect a higher proportion of gross costs within the network plus controls and subsequently recover a higher proportion of costs through developer contributions. Companies would then receive a share of the perceived reduction in net costs, while gross costs may remain unchanged.

Depending by the extent of exclusion of such services from the set of controls, companies would have more ownership/ flexibility in developing their charges, although they still have to comply with competition law and other relevant legal requirements.

Ofwat has powers to take action if there was a breach of competition law and/or charging rules. This option therefore relies on our ex post rather than ex ante regulatory powers.

Option 3: End-period volume forecasting incentive and correction mechanism

This option includes developer services and new connection charges within the scope of the network plus total revenue controls, but with a mechanism for adjusting revenues more transparently and symmetrically according to variations in the volume of new connections work. The revenue correction mechanism would adjust revenues for changes in new connection volumes, maintaining the average revenue at the level assumed when setting the price control. In addition we propose to remove contributions from developer services from totex cost sharing arrangements. This should maintain incentives for cost efficiency.

An end-period forecasting incentive will encourage companies to take ownership in responding to the demand for developer services in an efficient manner, but ensuring that there is a fair recovery of costs from developers and customers.

4.1.3 Our assessment of the potential options

Our preferred option on balance is to include developer services and connections charges within the scope of the network plus total revenue controls, but with an end of period volume forecasting incentive and correction.

The key advantage of this approach is that it is targeted to our policy intent to maintain the expected balance between their wholesale developers and customers' charges. Also the clawing back of the over (under)-recoveries will remove the incentives of a company to increase revenue from customers by unduly reducing connection charges.

In practice this option would:

- Incentivise better volume forecasting accuracy by applying a financial penalty if there is a significant difference between expected and actual volume of new connections work; and
- Ensure the balance of charges between developers and other customers is broadly maintained. This will be achieved by allowing companies to adjust their allowed revenues for each year to take account of differences between actual and projected volume.

That said this approach has some drawbacks. It may protect the incumbent from competition risk for the contestable services. An end-period symmetric revenue adjustment might ensure companies can recover in the following price period control, the previous revenue under-recovery (due to lower developer services activities).

Option 2 in contrast presents a number of drawbacks. While we recognise that this option may address the current perverse incentives, companies are encouraged to recover a greater proportion of gross costs through the control and by increasing developer contributions create a perceived cost saving.

In addition while this option might promote competition for the contestable services allocating more volume risk to incumbent, it may be insufficient to protect developers against monopoly pricing. In particular it could create unintended consequences for company incentives given that it will not protect them from uncertainty and not ensure protection of its assets.

Table 1 - Developer services' revenue adjustment options

	Option 1	Option 2	Option 3 Preferred option
Achieving our objectives	Current arrangements potentially distort incentives to serve developers efficiently and respond to market signals due to the incentive to minimise the number of connections and ability to offset revenue loss by increasing wholesale charges. ✓	Reduced regulatory burden but can't ensure consumers are protected or effective competition is promoted. ✓	Would strike best balance between customer protection and company financeability. ✓✓
How our objectives are achieved	Single till approach in a total revenue controls would still apply and in totex sharing mechanism would still allow companies to reduce total contributions from developers and increase wholesale charges ✗	It would automatically reflect volume trends. However relying only on charging rules may arise confusion and abusive behaviours. ✓	Symmetric adjustment of revenue for changes in volumes and removal of contributions from totex cost sharing would address interest to carry out perverse behaviour and provide incentives for cost efficiency. End-period incentive would promote forecast accuracy. ✓✓

Practicality	Would not require additional arrangements. ✓ ✓	Would decrease complexity and require lower implementation costs from Ofwat but higher ex post enforcement costs. ✓	Would require an additional minimum regulatory burden. ✓
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4.1.4 How our proposed approach will work in practice

At PR19, we will determine the expected volume of new connections and other developer services and the expected average revenue associated with delivering those services. At the 2024 price review (PR24), we will assess the volume differences over the period and calculate the revenue over-recovery or shortfall based on the outturn volumes of services applied to the expected average revenue. We also intend to apply an interest rate adjustment to the revenue differential to hold companies' revenue neutral.

Introducing a volume correction mechanism may dilute companies' incentives to forecast the volume of new connections accurately. In light of this, we propose applying a forecasting incentive mechanism, to apply symmetrically where outturn volumes of connections over the control period differ significantly from the expected volumes underpinning the controls. The mechanism would be applied symmetrically for variations outside a 'deadband', in a similar way to other financial incentives.

The incentive could take the form of an adjustment to the interest rate applied to the volume correction, or a direct financial penalty expressed as a percentage of the average revenue. In either instance, where the total measured volume of activity (that is, the number of new connections) over the five-year period falls outside the deadband, we will apply a penalty as part of the reconciliation of 2020-25 performance.

4.2 Revenue forecasting incentive

4.2.1 What issue are we seeking to address

Companies' actual revenues for the wholesale controls may differ from their allowed (or forecast) revenues in any given year. There are many factors that affect companies' ability to accurately forecast revenues. These include risks that are partially controllable by companies, such as forecast accuracy, and other factors that

management cannot control, such as the impact of weather, metering uptake and potential developments in the non-household market.

Consistent with our decision to adopt a control on total revenues for the network plus and water resources controls, it is desirable to allow companies to correct for under or over recovered revenues in any year of the price control period. We consider this is necessary to effectively mitigate the risk of over or under recovery. At a sector level, we estimate that a 2% revenue over-recovery, without correction, would be equivalent to an impact of around 0.9% on RoRE¹ in companies favour. Moreover, the correction of large systematic over- or under-recoveries may drive substantial swings in customer bills.

In PR14, we introduced a wholesale revenue forecasting incentive mechanism (WRFIM) to perform two key functions:

- to incentivise accurate wholesale revenue forecasting; and
- to correct for under/over-recovery of revenues associated with demand forecasts.

Figure 2 shows the range of performance against forecast from both the whole 2010-15 period and the first year of PR14. It is too early to say with certainty that impacts for 2015-16 are likely to be representative of the whole period 2015-20; we note in particular that 2015-16 was a relatively benign year in terms of the effect of weather on revenues.

¹ The impact on RORE is calculated as average of total revenues over five years divided by average regulated equity. It is based on sector figures that underpinned the 2014 FD, it hasn't been adjusted for bioresources, and will vary between companies depending on the relationship between revenue and RCV.

Figure 2 - 2010-15 and 2015-16 wholesale water revenue forecasting error



The average forecasting error for water revenues from the analysis above was 1.8% in 2015-16, compared to the 2.6% average adjustment over 2010-15 (under the revenue correction mechanism). Similar size deviations occurred in wastewater revenues.

In theory, both a move from a control on prices (through a prescribed tariff basket formula) at PR09 to a control on revenues at PR14 and the introduction of a forecasting incentive would suggest that the variation in 2015-20 should be lower than in 2010-15. This is because under a revenue control companies have a greater ability to change charges on an annual basis, rather than place limits on annual prices and an incentive to do so. This mitigates the impact of substantial annual revenue over (under)-recoveries.

A misuse of this flexibility may lead companies to transfer allowed revenues across years in ways that are not aligned with customers' interests – this could lead to higher price fluctuation and undue price volatility over time. For these reasons, we think a financial incentive, to focus companies on accurate revenue forecasting remains appropriate for 2020-25.

We consider the financial incentive needs to be sufficient to focus management attention in this area, and based on the outturn data from 2015-16 presented above we consider the incentive strength that underpins the existing WRFIM remains appropriate for the incentive mechanism we propose for 2020-25.

In the chapter 6, 'Targeted controls, markets and innovation: wholesale controls', we propose to introduce a separate mechanism to protect customers from volume risk for bioresources and to ensure companies forecast sludge volumes accurately. Companies would therefore be exposed to revenue risk for changes in sludge volumes. Therefore we confirm that the revenue forecasting incentive will not apply to bioresources.

We set out below the options we have considered for a revenue forecasting incentive (RFI) for PR19, the timing of adjustments for under (over)-recovered revenue and the timing of financial incentives.

4.2.2 What options have been considered

Option 1: in-period revenue adjustment and financial incentive

This option would involve in-period adjustments, where companies can recover any revenue variations from customers in subsequent years of the same price control period. It will also involve financial incentives applying in-period (to each year's recovered revenue) rather than end-period.

Option 2: in-period revenue adjustment but end-period financial incentive

This option would involve in-period adjustments but financial incentives applying at the end of the period (to the whole period's revenue).

Option 3: end-period revenue adjustment and financial incentive

This option would involve end of period adjustments, where companies can recover any revenue variations in the next price control period as well as end of period financial incentives.

4.2.3 Our assessment of the potential options

Our preferred option is to carry out in-period adjustments for both under and over recovered revenue and for the associated financial incentive, this is option 1. We consider this best aligns customer interests with financeability. It is also consistent with the revenue control and flexibility in charging arrangements. However, it would require a licence amendment for in-period adjustments to be made.

We recognise that an end-period revenue adjustment, as proposed in option 3, would be simpler to implement given that it would not require companies to accept a licence change. However we note that, 16 out of 17 companies agreed to a licence modification to allow in-period changes for the current price control period.

Consistent with our approach at PR14, we propose to offer a licence modification to ensure that in-period adjustments are allowed in 2020-25 and future price review periods. This would have the equivalent effect to the licence modification we made in 2016 for most companies in relation to the current price review period. This would encourage companies to take ownership of charges and accountability for managing cash flows between years, for the benefit of customers.

We want companies to take responsibility for providing accurate forecasts as part of their business plan. As companies cannot entirely control demand risks, we envisage that a small but meaningful financial incentive applied to each year's revenue would be enough to achieve this aim.

Table 2 - Timing of revenue adjustment options

	Option 1 Preferred option	Option 2	Option 3
Achieving our objectives	Best aligns customer protection and companies' financeability. Focus company attention to predictable revenue profile over the period under more flexible control. ✓	An end-period incentive would promote accurate revenues forecast only at the end of the period. ✓	An end-period revenue adjustment means that the balance between consumer and financing objectives would be in part linked with a higher regulatory uncertainty. ✓
How our objectives are achieved	Current charging flexibility may outweigh volatility from in-period adjustment. In-period financial incentives increase focus of current management to forecast accurately for each year. ✓✓	End-period financial incentives would promote companies to take ownership for their charges and revenue profile. ✓	End-period adjustment may over-rely on companies' ability to smooth bills over time but without strong incentives companies may focus on cash flow optimisation strategies at the expense of price stability. ✓
Practicality	In-period revenue adjustment and financial incentives would require only an	End of period financial incentives would require an additional	End of period revenue adjustment may be easier but it may require extra new

	Option 1 Preferred option	Option 2	Option 3
	additional minimum regulatory burden. ✓	minimum regulatory burden. ✓	tools to avoid significant end of period adjustments. ✓✓

4.2.4 How our proposed approach will work in practice

With our preferred approach, a symmetric revenue adjustment and a financial incentive will continue to apply in-period, to each year's recovered revenue. At this stage, based on 2015-16 data that the strength of the existing incentive remains appropriate.

Our mechanism will require specify allowed revenues for each year of the control period and at the end of each charging year, we will compare the allowed revenue with the revenues companies recover in that year.

Companies will be able to recover from customers (amend the target revenue to collect from customers) any shortfall (over-recovery), determined by the annual reporting and charging cycles.

4.3 Water trading incentives

4.3.1 What issue are we seeking to address

Water trading is where a company responsible for supplying water in an area buys it from someone else, either another water company or third party, rather than developing its own water resources. Trades can be for either raw or treated water and are typically agreed as part of the water resources management plan (WRMP) process. Since privatisation water trading has remained static at around 4 to 5% of distribution input (water into supply). However, at the same time companies have invested heavily in linking up their networks internally.

Increasing the level of water trading is a key theme of our Water 2020 proposals as it can benefit both:

- the environment, by allowing scarce resources to be optimised between company areas as well as within them; and
- customers, as it can allow more expensive investment in developing new resources within a company's area to be deferred, reducing future upward pressures on bills.

In 2015 we commissioned Deloitte to assess the scope of further water trading and they found that the historically low levels of trading do not reflect economic fundamentals. That is the current level of trading is a reflection of the barriers to trading rather than the economics of trading. Supporting this our analysis carried out for our decision document identified potential savings of £810m NPV (2015/16 prices) from increased water trading between incumbents. Similarly the Water UK water resources long term planning framework study found that to meet future water resource needs, inter-regional transfers will be required to carry water from the North and West across to the South and East of England

Water trading incentives for both new water exports and new water imports were first introduced at PR14. For all new qualifying exports in 2015-20, we currently allow exporters to retain 50% of the lifetime economic profits (that is, the profits over and above the normal return on capital invested). Importers benefit from an import incentive of 5% of the costs of water imported under new agreements, for the duration of the control period.

To protect customers, there is a cap on the incentive, both export (100% of the economic profit for the years the export operates in 2015-20) and import (0.1% of the importer's wholesale water turnover in any year of the control period). In order to qualify for the incentive the company must also show that its trade complies with an Ofwat-approved trading and procurement code. This code ensures that only economically and environmentally beneficial trades will receive an incentive payment. This is assessed as part of our price review.

This approach means that the incentives are not paid in-period but are paid in subsequent control periods. Any incentive payments from new water trades in 2015-20, due to be paid in 2020-25, will need to be allocated between the water resources and network plus water control. This is because the trades will utilise assets across the both controls. As part of their business plans we expect companies to allocate the incentive payments from new water trades across water resources and network plus water for us to review.

We have reviewed the impact of the incentives on water trading as part of our considerations in developing this methodology. We also engaged on these options through discussions at the September 2016 meeting of our water resources working

group. Slides and minutes of the working group discussion are published on [our website](#).

4.3.2 What options have been considered

We have considered three options for water trading incentives for new trades starting between 2020-25, ranging from their removal (option 1), maintaining them at the same level (option 2) or strengthening them (option 3).

Option 1: No incentives for new water trades

We would withdraw the incentives for water trading at PR19 and no incentives would apply to new trades made during 2020-25. The incentive payments due from new trades agreed from 2015-20 will still be made at PR19 and later reviews where required, subject to review and assurance of compliance with the company trading and procurement codes.

After PR19 trading and procurement codes would be required only where incentive payments from new trades agreed during 2015-20 were being claimed at later reviews.

Option 2: Maintain the existing incentives for new water trades

This option would involve maintaining the existing incentives for new trades agreed during 2020-25. There would still be export and import incentives available at the same rates as currently apply, with the existing caps maintained alongside the requirement for a trading and procurement code. This is the status quo option.

Option 3: Strengthen the incentives for new water trades

This option would involve strengthening the existing incentives for new trades agreed during 2020-25. This could be achieved through:

- longer periods during which companies can retain benefits from trading, for example to align with the lifetime of the schemes (this only applies to imports as the export incentive already applies to the lifetime of the scheme);
- a higher percentage of benefits that can be retained by companies; or
- a combination of the above.

To protect customers and the environment we would still apply a cap, though its level could change, and the requirement to complete and comply with a trading and procurement code.

4.3.3 Our assessment of the potential options

Our preferred option is to maintain the existing incentives for new water trades. A key advantage of maintaining the incentives is that it is consistent with the long term nature of water trading as a solution to meet future challenges. It also gives the incentives time to work and time for us to collect evidence on their effectiveness. In particular, the incentives for 2015-20 were confirmed after draft water resources management plans, where most trades are likely to have been identified, had already been submitted. This suggests the existing water trading incentives were unlikely to have significantly influenced company's plans for 2015-20 and that this period may be the first time we can fully assess their impact.

Any increase in the strength of the water trading incentives therefore seems premature when we need time to see how the existing incentives are working. In addition, any strengthening of the water trading incentives would only be confirmed in the final methodology, which is due to be published after draft WRMP are submitted and would therefore not be in time to influence companies' plans.

We are also aware from our pre-consultation meetings on WRMP19 that a number of potential water trades are being considered, this could suggest the existing incentives are promoting water trades. The incentives were carefully calibrated and extensively consulted on with stakeholders as part of the PR14 methodology. We have already approved two company trading and procurement codes, with one currently out [for consultation](#), and are expecting up to five more to be approved before business plans are submitted in September 2018. Having an approved code is a requirement for receiving water trading incentives. These factors further suggest there is not a clear case for either removing or strengthening the incentives at this time.

We also recognise that we need to ensure that the financial incentives and profit opportunities from exporting water, which are available under the regulatory framework, do not create biases or distortions between bidding markets to supply other wholesale companies and bilateral markets to supply retailers. Maintaining the incentives could create a bias in favour of the bidding market, as the incentives are not available for bilateral market transactions. However, as noted the English bilateral market will open later in the period and we expect this market to be small and nascent in nature. This suggests that any distortion is likely to be small during

2020-25, but that this interaction will need to be more fully reviewed at the next price review and could suggest option 1 may be more appropriate at future reviews.

Table 3 - Our assessment of water trading incentives options

	Options 1 No incentives for new water trades	Option 2 Status Quo: Maintain the existing incentives for new water trades Preferred option	Option 3 Strengthen the incentives for new water trades
Achieving our objectives	Could reintroduce a barrier to trading and work against our objective of increasing levels of water trading. ✘	Recognises the long term nature of trading and gives the existing incentives time to work. ✓✓	Sends strong signal to increase trading, but any change would not be confirmed in time to influence trades. ✓
How our objectives are achieved	Could discourage trading where efficient and result in the loss of wider benefits for customers and the environment. ✘	Focused on encouraging trading where efficient for the wider benefits with a consistent regulatory approach. ✓✓	Could send strong signal to encourage trading but would require a change to the regulatory approach. ✓
Practicality	Low regulatory burden, no special treatment of water trading revenues (avoiding any potential market distortions) and no requirement for trading and procurement codes. ✓✓	Simple to implement subject to aligning to new controls and represents continuation of regulatory approach. ✓✓	Any new incentives would need careful calibration and could create additional complexity. ✘

4.3.4 How our proposed approach will work in practice

At PR19 we will maintain the water trading incentives, the incentives will take the form of:

- **Export incentive:** For all new qualifying exports that start during 2020-25, we will allow exporters to retain 50% of the lifetime economic profits (that is, the profits over and above the normal return on capital invested). Companies will receive an export incentive payment at PR24 equal to 50% of the full discounted economic profit for the forecast life of the export with a cap of 100% of the economic profit for the years the export operates in 2020-25. Any amount beyond the cap will be rolled forward to the next price control.
- **Import incentive:** Qualifying imports will benefit from an import incentive payment of 5% of the costs of water imported under new agreements. Import incentive payments will be subject to a cap of 0.1% of the importer's wholesale water turnover in any year of the control period. The import incentive payments are accrued annually during 2020-25 with the cap applying in each year.

The scope of the incentives is in line with our decision in the [Ofwat PR14 reconciliation rulebook](#).

In order to qualify for the incentive the company must also show that its trade complies with an Ofwat-approved trading and procurement code. Our requirements for the code are set out in [Appendix 3 of our final PR14 methodology statement](#), which we might need to update in the future following consultation with the sector. Existing codes that have been approved for the 2015-20 period will still apply during 2020-25, but we might require companies to conduct a review of them, for example, if we updated our requirements for the codes.

As noted above the incentive payments from the incentives sit across the water resources and network plus water control. Reflecting this for future planned trades in the 2020-25 period, we would expect companies to propose an indicative split for future incentive payments between these controls. This allocation would be revisited at PR24 to reflect the proposed approach to regulation of wholesale water activities at that time.

We welcome further views on whether companies need further incentives to facilitate the development of water trades, including whether to allow cost recovery for development costs regardless of whether a trade goes ahead.