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Trust in water

Delivering Water 2020: Our methodology for the 2019 price review

Appendix 2: Delivering outcomes for customers

**Appendix to Chapter 4:
Delivering outcomes for
customers**

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1 Summary

This appendix sets out our final methodology for the 2019 price review (PR19) with respect to outcomes. This methodology has been determined following full consideration of the views expressed by respondents to our [draft methodology proposals](#), published in July of this year.

This appendix supplements the information on outcomes we set out in chapter 4 of our PR19 final methodology.

For customers and stakeholders to have trust and confidence in the water sector, we need companies to be focused on delivering the outcomes that matter to customers, future customers and the environment. Outcomes-based regulation was one of the most significant innovations we introduced at the 2014 price review (PR14). Alongside the introduction of the total expenditure (totex) approach to cost assessment, the outcomes approach has sharpened companies' focus on delivering what matters to customers and society, while giving them greater flexibility in how they deliver them. This has enabled companies to improve efficiency. For PR19, we want to build on the success of the outcomes framework by asking companies to:

- make more stretching performance commitments to their customers;
- have stronger incentives to deliver on their commitments; and
- better reflect resilience in their commitments.

Applicability to England and Wales

Our PR19 final methodology for outcomes **applies both to** companies whose areas are wholly or mainly in England and companies whose areas are wholly or mainly in Wales. The 14 common performance commitments apply to all companies, as they reflect issues that customers in England and Wales value highly. We expect all companies in England and Wales to develop bespoke performance commitments to reflect their customers' particular preferences and their respective government's policy.



Our approach to outcomes supports the key themes of PR19. Our approach focuses on ensuring companies set stretching commitments for all aspects of **customer service**. We are promoting long-term operational **resilience** through the common performance commitments. This includes day-to-day operational resilience covered by common performance commitments such as water supply interruptions and internal sewer flooding, two new common performance commitments on water and wastewater resilience, and four on asset health. We are also requiring companies to propose bespoke resilience performance commitments to address their particular resilience challenges. We are promoting **innovation** by encouraging companies to

propose enhanced outperformance payments for frontier-shifting performance on the common performance commitments. We also expect companies to propose innovative, bespoke performance commitments that reflect their customers' preferences. We address **affordability** by requiring companies to propose value-for-money performance commitments with stretching commitment levels, with incentives to deliver on their commitments through outcome delivery incentives (ODIs).

Section 3 of appendix 15, outlines respondents' views and our response to the three questions we posed on outcomes in our draft methodology consultation that are not covered in this appendix.

2 Performance commitments

Performance commitments are the pledges companies make to their customers and stakeholders about service levels to make progress towards their outcomes. They are developed through customer engagement to reflect the priorities of customers and other stakeholders.

In this appendix we distinguish between a **performance commitment** and the **performance commitment level**. A **performance commitment**, is the indicator the company is measuring itself against (for example, the average length of supply interruptions that last more than 3 hours). The **performance commitment level** is typically a particular value of the indicator (for example, we commit to achieve a reduction in supply interruptions to a level of 10 minutes per property per year).

What we want to achieve

We want companies to develop a balanced, challenging package of performance commitments with stretching performance commitment levels so that:

- stakeholders can more easily compare and challenge the stretch in companies' proposals in key areas
- companies commit to delivering stretching and good value service performance levels to their customers;
- companies have strong incentives to deliver on their commitments to customers;
- companies are able to develop innovative performance commitments that reflect their customers' priorities; and
- stakeholders have trust and confidence in the outcomes framework.

In order to deliver this balanced package, we consider that companies need to have both common and bespoke performance commitments. Common performance commitments are commitments with standardised definitions that all companies must have. Bespoke performance commitments are proposed by each company and reflect their own circumstances and their customers' particular preferences.

What options have we considered for performance commitments?

We considered four options for performance commitments, in [Appendix 2 of the draft methodology proposals](#).

Option 1: Base case - PR14 with improvements to the cost benefit analysis.

The first option reflects the PR14 approach with the necessary minimum improvements to reflect the lessons learned at PR14¹. It is the base case against which we have assessed all the other options.

This option has seven common performance commitments covering many of the outcomes that customers' value based on companies' customer engagement at PR14. All companies' other performance commitments would be bespoke. We would set common performance commitment levels for five of the common performance commitments. For the remaining performance commitments, companies would use a cost benefit analysis to set their service levels. Companies would use a richer evidence base in their cost benefit analysis than at PR14.

Option 2: All performance commitments are bespoke with a fully flexible approach to setting their levels

This option involves companies having only bespoke performance commitments in addition to the two Ofwat incentive mechanisms of the Customer Measure of Experience (C-MeX) and the Developer Services Measure of Experience (D-MeX). Companies would have full flexibility to set their performance commitment levels. They would be able to use any approach, but it must reflect customer engagement and challenges from their CCGs.

Option 3: All performance commitments are common, with a prescriptive approach to setting their levels

This option involves us requiring all performance commitments to be common, with no scope for companies to propose their own performance commitments. We would issue prescriptive rules on setting performance commitment levels for all the common performance commitments.

Option 4: Balance of common and bespoke performance commitments

This option involves us requiring companies to have a number of common performance commitments (14, which is considerably more than in Option 1) to cover the issues that matter to customers. However, there is still scope for companies to propose bespoke performance commitments that reflect their local customer engagement. This option includes expectations for companies to set

¹ For example, in the [May 2016 Customer engagement policy statement](#) we highlighted that we expect companies to place a greater weight on building a robust, balanced and proportionate evidence base. We also stated that companies should be considering other valuation methods than stated preference willingness to pay (for example, revealed preferences and behavioural economics approaches).

stretching service levels using robust evidence and justifying them against a range of approaches.

Our assessment of the potential options for performance commitments.

Table 1 below, describes our assessment of the options relating to performance commitments.

Table 1 - Our options assessment for performance commitments²

	Option 1 PR14+ (base line)	Option 2 All bespoke	Option 3 All common	Option 4 Balance of common and bespoke - Preferred option
Achieving our objectives	Common PCs enable comparability and hence, stretch. But, us setting common levels reduces role of customer engagement. These common PCs do not cover all areas that customers consider important, e.g. elements of resilience. ✓	Limited comparability does not promote stretching PCs and companies may not address issues of importance to customers in their PCs. x	Comparability between PCs would promote stretch, but all common PCs would not allow companies to reflect their customers' local priorities. ✓	Common PCs enable comparability and promote stretching PCs. Our 14 common PCs cover customer priorities. This option allows customer engagement to inform the common PC levels and bespoke PCs. ✓✓
How our objectives are achieved	Option 1, involves a lack of flexibility for companies in proposing their	Only bespoke PCs, do not promote improved customer	Only common PCs, does not promote better regulation, as it does not allow	Option 4, promotes better regulation by proportionately balancing the

² In the table we use PC to mean performance commitments due to space constraints.

	Option 1 PR14+ (base line)	Option 2 All bespoke	Option 3 All common	Option 4 Balance of common and bespoke - Preferred option
	PC levels, e.g. a focus on CBA only, which will make it harder for them to use wider customer evidence. ✓	impacts, because lack of comparability between all PCs makes it difficult to ensure they are appropriately stretching. ✓	companies to own their plans and engage with their customers on their priorities. This option does not foster innovation. x	need for stretching PC levels for common PCs, and the need for bespoke PCs to reflect customer engagement. ✓✓
Practicality	Common PCs mean that customers, CCGs and we can be sure the levels are stretching. It is difficult for us to set the common PC levels centrally without customer views. ✓	It is very hard for customers, CCGs and us to assess the level of stretch of companies' PCs when they are all different x	Having all common PCs is easier for us, CCGs and customers to assess. But it is difficult for us to set the common PC levels centrally without customer views. x	Common PCs mean that customers, CCGs and we can be sure the levels are stretching. Option 4 allows for customer research to inform setting of PC levels and choice of bespoke PCs. This will be relatively complex to assess ✓

Our preferred option remains Option 4. Option 4 has a core set of common performance commitments, with common definitions, valued highly by all customers (including resilience). These common performance commitments allow stakeholders to compare and challenge companies on the ambition in their proposed performance commitment levels. There is still scope for companies to set their own bespoke

performance commitments. This allows companies to reflect their particular customers' preferences and innovate in the design of their performance commitments. Companies can also reflect their own customers' preferences in the levels they propose for their common performance commitments and the ODIs they propose for them.

Under Option 4 we expect companies to reflect their customers' preferences when proposing their performance commitment levels. We also expect companies to challenge the level of stretch in their performance commitment levels against a range of approaches (for example, against comparative and historical information). We want companies to challenge themselves against the approaches so that when engaging with customers they are not using their current performance as the starting point, but starting from what excellent performance looks like.

2.1 Common performance commitments

This section sets out our decisions on common performance commitments.

2.1.1 Background

At PR14 we required all companies to have common performance commitments on leakage and the service incentive mechanism (SIM). Companies defined the rest of their performance commitments, leading to a number of similar, but not identical, definitions of their performance commitments. Several stakeholders, including some companies, were concerned that this variety of definitions made comparing the ambition in companies' performance commitments difficult. At PR14 we identified that most companies had performance commitments that related to similar aspects of service delivery. These were:

- duration of water supply interruptions;
- number of contacts from customers regarding water quality;
- compliance with the Drinking Water Inspectorate's (DWI's) water quality standards;
- number of wastewater pollution incidents; and
- number of properties impacted by internal sewer flooding.

Together with leakage and the SIM, these five performance commitments effectively became a set of common performance commitments, although companies did not all use the same definitions for each of them.

2.1.2 Our draft methodology proposals

We consulted on a list of 14 common performance commitments. We provided the reasons why each should be a common performance commitment. We provided the current definition for each metric.

We included two new forward-looking risk-based resilience common performance commitments. We indicated that we were cautious about applying financial ODIs to these new risk-based resilience metrics (as we explain below). We consulted on three options for the wastewater resilience metric and explained there was a possibility that none would be ready or appropriate to be a common performance commitment in PR19.

2.1.3 Stakeholder views

Most respondents agreed with the majority of the common performance commitments, with different respondents commenting on different individual metrics. We have taken into account the responses on the common performance commitments we proposed and these are summarised in table 2 below³.

Some respondents requested that the common performance commitments should cover additional areas, in particular: affordability and vulnerability, the environment, and the drinking water quality metric - Events Risk Index (ERI). Table 2 covers stakeholders' views and our responses to these.

Some respondents commented that the balance of common and bespoke performance commitments is weighted too much towards common performance commitments. They suggested that this does not allow companies sufficient flexibility to reflect their customer and stakeholder preferences, and company-specific circumstances, in their performance commitments. They raised a concern that too many common performance commitments can stifle innovation because it limits companies' ability to seek new ways of measuring and managing performance.

2.1.4 Our decision

We have based our final list of common performance commitments on the following requirements. The performance commitment should be:

- relevant to customers of all companies;
- able to be used to engage effectively with customers;
- relevant to what is trying to be measured (so that the metric can be used to drive company behaviour in the right direction);

³ Please note that responses not covered in this appendix are covered in appendix 15.

- able to be used to track a company's progress;
- quantifiable, with available data and a clear definition;
- comparable;
- reproducible - yields a consistent result if the correct method is followed; and
- able to be used to set stretching performance commitment levels.

We have carefully considered the case for making each one of the 14 performance commitments common for all companies and consider that are strong reasons for each of these performance commitments to be common. The 14 common performance commitments overall strike the right balance between common and bespoke performance commitments. The common performance commitments allow customers, CCGs, other stakeholders and us, to compare performance and to challenge companies on their proposed performance commitment levels more effectively. There is plenty of scope for companies to propose bespoke performance commitments to reflect their customer and stakeholder preferences and company-specific circumstances.

While the common performance commitments reflect issues that all customers value, it is important that we and the sector continue to develop and refine them for future price review periods to make sure they continue to reflect customers' preferences. We look forward to working with companies further on this.

The table below lists the final 14 common performance commitments, stakeholder views, and our rationale for using each as a common performance commitment.

We have created a [webpage](#) of the 14 common performance commitments. This contains the latest definitions and their status. Final definitions will appear on the [webpage](#) when they are complete.

Table 2 - Our 14 common performance commitments for PR19

No.	Common performance commitment for PR19	Stakeholder views	Our approach
1	Customer measure of experience (C-MeX)	See appendix 3.	C-MeX is a financial and reputational incentive to improve the satisfaction of residential customers with their customer experience. For more details see appendix 3.
2	Developer services measure of experience (D-MeX)	See appendix 3.	D-MeX is a financial and reputational incentive to improve the satisfaction of developer services customers with their customer experience. For more details see appendix 3.
3	Water quality compliance - The DWI's Compliance Risk Index (CRI)	<p>One respondent commented that there should be no outperformance payments for CRI as water quality is a statutory obligation.</p> <p>Several respondents commented that CRI is inherently volatile, is affected materially by a relatively small number of events, and is hard to explain to customers. There were concerns that the volatility might undermine confidence in water quality.</p> <p>Some respondents raised the issue that CRI includes metaldehyde failures. This could adversely affect companies that have higher levels, which is not within their control.</p> <p>Some respondents considered that CRI could unfairly penalise larger companies, as they take more samples than smaller companies. Some considered that CRI could unfairly penalise small companies with small operating areas, where one incident could have a big impact.</p>	<p>We have retained CRI as a common performance commitment because water quality is a top customer priority.</p> <p>We maintain our approach that outperformance payments are not appropriate for this measure because companies should be achieving full compliance.</p> <p>We have had detailed discussions with DWI about respondents' comments. The DWI has developed CRI through a collaborative process with the industry, was aware of the concerns and has been addressing them where appropriate.</p> <p>We recognise that different companies have different challenges related to metaldehyde. However, it should be included in CRI because it affects drinking water quality.</p> <p>We have discussed with DWI whether CRI disadvantages large or small companies, but did not find evidence this was clearly the case.</p>

No.	Common performance commitment for PR19	Stakeholder views	Our approach
		In addition, there was some concern that CRI has an element of judgement (by DWI inspectors), which might create inconsistencies between companies.	We acknowledge that CRI has an element of inspector judgment, but this is not new to CRI and is part of the whole water quality regime. DWI provides guidance and training to its inspectors to ensure consistency.
4	<p>Water supply interruptions - Supply interruptions greater than three hours (expressed in minutes per property). This metric is based on the new consistent definition.</p>	As there is currently some variance in measurement, there is a risk that performance reporting will not be consistent.	<p>We have retained water supply interruptions as a common performance commitment because customers view long interruptions to supply as a significant service failure.</p> <p>Supply interruptions are an indicator of the resilience of the water network, in particular how well a company can recover from an incident.</p> <p>We have supported companies working together, co-ordinated by Water UK, and working with UKWIR to agree a consistent definition of supply interruptions. We are taking forward a joint project with Water UK, completing early in 2018, to further improve the consistency of the definition and reporting against it.</p>
5	<p>Leakage - Leakage in mega-litres per day (Ml/d). Three-year average. This metric is based on the new consistent definition of leakage.</p>	<p>No respondents disagreed with this metric.</p> <p>Some respondents highlighted the need to consider the impact that moving to a new consistent definition of leakage would have on reporting leakage. Until the new definition is fully implemented there could be a period of volatility in reported performance. Care needs to be taken in setting performance commitments and we need to ensure that leakage reductions reflect real improvement, instead of changes in the definition.</p>	<p>We have retained leakage as a common performance commitment because reducing leakage is a high priority for customers. It also indicates how well a company maintains and manages its network.</p> <p>Leakage is an indicator of the resilience of the water network and can help companies address environmental pressures.</p> <p>We have supported companies working together, co-ordinated by Water UK, and working with UKWIR to agree a consistent definition of leakage. We are taking</p>

No.	Common performance commitment for PR19	Stakeholder views	Our approach
		<p>Some respondents also commented on the use of a three-year average. One respondent asked for clarification given the new definition of leakage would not have been fully embedded in companies. Another respondent considered that deadbands would be better than three-year averages.</p>	<p>forward a joint project with Water UK, completing early in 2018, to further improve the consistency of the definition and reporting against it.</p> <p>We consider respondents' comment on setting performance commitments, three-year averages and deadbands for leakage in the section on 'setting performance commitments', below.</p>
6	<p>Per capita consumption - Average amount of water used by each person that lives in a residential property (litres per head per day). Three-year average.</p>	<p>In general respondents agreed with the inclusion of having a common performance commitment for water usage. However, some respondents disagreed with having per capita consumption. They considered that per household consumption (PHC) was a more reliable metric. They referred to a review by consultants, carried out on PCC and PHC.</p> <p>Some respondents disagreed with having financial ODIs attached to PCC without the use of safeguards (such as, deadbands) or the use of three-year averages. These would help take account of the influence of weather on PCC.</p> <p>Some respondents wanted further clarification on how PCC would be measured and calculated. One respondent considered that variations of companies' reported performance could be due to companies' different approaches to measuring PCC.</p> <p>A number of respondents highlighted that there was a strong interaction between PCC and leakage.</p>	<p>We have retained PCC as a common performance commitment because reducing PCC can contribute to companies addressing many of the resilience and environmental pressures facing the sector. PCC was a priority for a number of companies' customers at PR14. Both the Welsh and UK governments have identified PCC as a key priority, and said we should encourage ambitious reductions, where this represents best value in the long-term.</p> <p>Companies should report their performance, based on PCC. We prefer PCC because it also allows for more consistency with the governments' priorities and the Water Resource Management Plans (WRMPs). There is more historical data on PCC trend, and occupancy (the difference between PHC and PCC) is one of the key determinants of water usage and useful for companies to know about.</p> <p>Having financial ODIs attached to PCC, highlights the importance that we, the government and customers</p>

No.	Common performance commitment for PR19	Stakeholder views	Our approach
		<p>Moving to a new definition of leakage will impact on companies' reported performance on PCC.</p>	<p>place on reducing water usage. Companies can engage with their customers about the appropriate ODIs for their particular contexts.</p> <p>We understand that PCC is influenced by weather and that its definition is linked to that of leakage. We therefore accept that companies can use three-year averages in the same way as for leakage (more detail is below on setting performance commitments).</p> <p>In relation to the comments on the derivation of PCC and the interaction with leakage, we are taking forward a joint project with Water UK, completing early in 2018, to further improve the consistency of the definition and reporting against it.</p> <p>We address the issues respondents raised about setting performance levels below.</p>
7	<p>Internal sewer flooding - The number of internal flooding incidents per year, including sewer flooding due to severe weather events per 10,000 sewer connections. (Wastewater companies only)</p>	<p>Several respondents asked whether the definition included or excluded incidents due to severe weather. Several respondents requested severe weather to be excluded since including it makes cross sector comparisons harder.</p> <p>Several respondents commented that the common commitment level should be based on normalised comparative data (for example, per 10,000 sewer connections).</p>	<p>We have retained internal sewer flooding as a common performance commitment because this is one of the most distressing service failures for customers, and reducing it is a very high customer priority.</p> <p>It is an indicator of wastewater network resilience. To ensure resilience is reflected in this performance commitment we are including 'incidents due to severe weather events' in the definition to ensure companies are incentivised to mitigate the risk of service failure during severe weather.</p>

No.	Common performance commitment for PR19	Stakeholder views	Our approach
			<p>When comparing companies, we agree that companies should normalise sewer flooding by the number of sewer connections to make the data comparable. Companies might also want to present their performance commitments in absolute numbers to make it easier for customers and stakeholders to understand.</p> <p>We have supported companies working together, coordinated by Water UK, and working with UKWIR, to agree a consistent definition of internal sewer flooding. We are taking forward a joint project with Water UK, completing early in 2018, to further improve the consistency of the definition and reporting against it.</p>
8	<p>Pollution incidents</p> <p>Category 1 - 3 pollution incidents per 10,000km of wastewater network, as reported to the Environment Agency and Natural Resources Wales.</p> <p>(Wastewater companies only)</p>	<p>Several respondents raised a concern that the inclusion of this performance commitment and the non-infrastructure pollution incidents common performance commitment will mean that companies are penalised twice for incidents that appear in both metrics.</p> <p>Some respondents said that comparative assessments on this metric will need to take account of company-specific factors.</p> <p>Some respondents argued that the definition should include category 1, 2 and 3 pollution incidents, for consistency with the Environment Agency's Environmental Performance Assessment.</p>	<p>We have retained pollution incidents as a common performance commitment because it is a key metric of the impact of a company on the environment. Reducing pollution incidents is important for customers and several key stakeholders. Pollution Incidents are an indicator of wastewater network resilience.</p> <p>We have replaced the non-infrastructure pollution incidents asset health common performance commitment (see row 14 of this table below) so the overlap with this common performance commitment no longer exists.</p>

No.	Common performance commitment for PR19	Stakeholder views	Our approach
		<p>A respondent commented that Ofwat should align any proposed common performance commitment for pollution incidents across England and Wales by working with both the Environment Agency and Natural Resources Wales.</p> <p>There were some respondents who considered outperformance payments were not appropriate for this measure.</p>	<p>In response to stakeholders' comments on our draft methodology proposals, we have amended the definition to include category 1 and 2 pollution incidents as well as category 3 to bring our definition into line with the Environment Agency's definition.</p> <p>Natural Resources Wales and the Environment Agency consider that this metric is measured consistently across England and Wales and both definitions are included on our webpage.</p> <p>We consider that companies should be able to propose outperformance payments for pollution incidents if this reflects evidence of customer preferences and priorities. So far this price control period, a number of companies have made significant reductions in the number of their pollution incidents, which seem to be linked to the financial incentives available for both outperformance and underperformance.</p>
9	<p>Risk of severe restrictions in a drought⁴ - New risk-based resilience metric.</p> <p>Percentage of the population the company serves, that would experience severe supply restrictions (e.g. standpipes or</p>	<p>The inclusion of a common water resilience metric was welcomed by many respondents. Several supported the drought metric as an appropriate simplification of the industry's development work.</p> <p>Several respondents requested more guidance on the selection of a 1-in-200 year drought as there is no standard method for calculating it and there will</p>	<p>We have retained the risk of restrictions in a future drought as a common performance commitment because it is important to customers and a good measure of future resilience.</p> <p>Although this is a newly developed measure, its design aims to give a relatively comparative view of companies' drought resilience. This metric is more</p>

⁴ Please note we are proposing that the two resilience metrics do not have financial ODIs. See PR19 final methodology, Section 4.2.1.

No.	Common performance commitment for PR19	Stakeholder views	Our approach
	<p>rota cuts) in a 1-in-200 year drought.</p>	<p>be varying degrees of uncertainty, depending on the company approach to forecasting.</p> <p>There were also some queries about whether resilience to the 1-in-200 year drought was being set as a target to be achieved.</p> <p>There were also concerns about the pass and fail nature of the measure, especially for single zone companies where either 100% or 0% would be reported.</p> <p>Respondents agreed that this may not be ready for financial incentives.</p>	<p>comparable across companies than the levels of service that are used for water resources planning.</p> <p>This metric will be supported by further guidance developed with the industry for calculating, reporting and allocating confidence grading to the new metric.</p> <p>The metric is not a target and does not override the water resources management planning process. It is up to companies to propose their own stretching performance commitment on this metric, following engagement with their customers and stakeholders.</p> <p>Companies can develop bespoke performance commitments to cover hazards and issues related to water resilience, not covered by this common performance commitment.</p> <p>To keep the metric simple to understand and for the industry to calculate and we have used a pass / fail approach. Companies will be able to provide context around their performance when reporting annually in the next price control period.</p>
10	<p>Risk of sewer flooding in a storm⁴ New risk-based resilience metric Percentage of population at risk of sewer flooding in a 1-in-50 year storm.</p>	<p>The potential inclusion of a common wastewater resilience performance commitment was welcomed by many respondents. There was feedback on all the metrics we consulted on with majority support for option 1 (percentage of population served by a wastewater system at risk of flooding).</p>	<p>We are proposing to use 'risk of sewer flooding in a storm' as a common performance commitment at PR19 because the potential for sewer flooding in a storm is important to customers.</p> <p>We agree with the majority of responses that option 1 is the most suitable for a wastewater resilience metric, which is our approach for PR19.</p>

No.	Common performance commitment for PR19	Stakeholder views	Our approach
		<p>There was some concern about whether this metric would be robust and consistent enough for PR19.</p> <p>One respondent said option 2 (vulnerability of combined sewer overflows to flooding from high intensity rainfall) was too narrow. Another respondent supported it, based on its potential to combine wastewater systems and environmental benefits.</p> <p>Option 3 (removing surface water from the system) was also considered a good metric, but not focused enough on resilience.</p> <p>Respondents noted that our consultation options were focused on a single hazard, flooding, and therefore not comprehensive measures of resilience.</p> <p>Respondents agreed that this may not be ready for financial incentives</p>	<p>We consider that comments that this metric is not fully developed have now been addressed by the Water UK / Atkins work to further develop option 1. The metric combines the two sub-options (1a and 1b) we consulted on in July into a single metric, which incentivises improvement in both the resilience of wastewater systems and in knowledge of those systems.</p> <p>We agree with respondents that our options 2 and 3 were lagging indicators and less focused on the resilience of wastewater systems.</p> <p>We agree that none of our options looked at the resilience of the wastewater system comprehensively, and are focused on flooding as a single hazard, although an important one. We welcome work on more comprehensive metrics and are keen to contribute to these.</p> <p>Companies can develop bespoke performance commitments to cover hazards and issues related to wastewater resilience, not covered by this common performance commitment.</p>
11	Mains bursts (asset health metric 1 - water)	<p>Companies and other stakeholders generally supported the inclusion of this metric.</p> <p>There were comments about improving consistency in the definition, recording and reporting of mains bursts. Several respondents commented that the metric should only look at reactive mains bursts. This</p>	<p>We have retained mains bursts as a common performance commitment because it covers the asset health of water infrastructure.</p> <p>Current performance on mains bursts provides information on companies' future ability to provide water services to customers.</p>

No.	Common performance commitment for PR19	Stakeholder views	Our approach
		<p>would exclude proactive mains bursts, which are found when companies carry out active leakage detection.</p>	<p>We are taking forward a joint project with Water UK, completing early in 2018, to further improve the consistency of the definition and reporting against it, including whether it is appropriate only to look at reactive mains bursts in this common performance commitment.</p>
12	<p>Unplanned outage (asset health metric 2 - water)</p> <p>The company's total unplanned outage as a proportion of the company's total production capacity (%); where unplanned outage is a temporary loss of maximum production capacity.</p>	<p>Respondents had mixed views on this proposed metric, with some supporting the inclusion of the metric to measure water non-infrastructure asset health. Others were concerned about the consistency in recording and reporting of unplanned outage, and any unforeseen consequences an incorrect definition could have.</p> <p>Respondents raised concerns about the use of maximum production capacity impacts, rather than the more commonly used deployable output impacts of outage.</p> <p>A number of respondents considered that the planned shutdown of works to manage raw water quality events, should not be captured by the metric.</p>	<p>We have retained unplanned outage as a common performance commitment because it provides a good measure of asset health for water non-infrastructure (above-ground) assets, which vary significantly in their type and individual function.</p> <p>The metric provides information on key elements of asset health and the resilience of the water system supplying customers.</p> <p>We are taking forward a joint project with Water UK, completing early in 2018, to further improve the consistency of the definition and reporting against it. This will build on our proposed definition in the draft methodology, together with the consultation response feedback and informal industry discussions on the definition.</p> <p>We still prefer unplanned outage measured in terms of lost maximum capacity rather than deployable output, as deployable output is scenario specific reporting the impact as it would be in a design event such as a 1-in-100 year drought. Given the asset health focus of the</p>

No.	Common performance commitment for PR19	Stakeholder views	Our approach
			<p>metric rather than water resource availability we consider the drought impact is not relevant in this particular context.</p> <p>As part of the ongoing work on the definition, we consider that it is appropriate to exclude planned shutdowns of works to manage raw water quality from the metric.</p>
13	<p>Sewer collapses (asset health metric 3 - wastewater)</p> <p>(wastewater companies only)</p>	<p>Companies and other stakeholders generally supported the inclusion of this metric as a common performance commitment. However, they did ask for more consistency between companies in the definition, recording and reporting of sewer collapses. For example, in the definition of loss of service or degree of structural failure and / or deformation that constitutes a sewer collapse.</p> <p>One respondent wanted us to use ‘sewer blockages’ (which is on the long list of asset health metrics) to replace ‘sewer collapses’, as the common performance commitment. This is because it is more challenging for companies to reduce than the number of sewer collapses.</p>	<p>We have retained ‘sewer collapses’ as a common performance commitment because it is a good indicator of wastewater infrastructure asset health. It helps to identify if companies are failing to maintain their sewers, and is not as affected by customers’ behaviour, as blockages. While we consider sewer blockages to be a useful metric, it is a less direct measure of asset health than sewer collapses, so we are retaining sewer collapses for the common performance commitment.</p> <p>Current performance on sewer collapses, provides information on companies’ future ability to provide services to their customers.</p> <p>We are taking forward a joint project with Water UK, completing early in 2018, to further improve the consistency of the definition and reporting against it.</p>
14	<p>Treatment works compliance (asset health metric 4 - wastewater)</p>	<p>In the draft methodology proposals, we proposed ‘pollution incidents caused by non-infrastructure (above ground) assets’, as the common performance</p>	<p>We have decided on treatment works compliance as the common performance commitment for wastewater non-infrastructure asset health.</p>

No.	Common performance commitment for PR19	Stakeholder views	Our approach
	(wastewater companies only)	<p>commitment for wastewater, non-infrastructure asset health. Several respondents criticised this measure as being too similar to the common performance commitment on pollution incidents.</p> <p>Some respondents requested that we use 'treatment works compliance' instead, noting its importance to water quality in rivers and bathing waters.</p> <p>We proposed this replacement as part of our informal asset health email working group that we set up after we received the consultation responses. Most respondents to the group supported the inclusion of this metric.</p> <p>Respondents pointed out that the Environment Agency measure, includes some water treatment works, as well as wastewater treatment works. They suggested, therefore, that this was not appropriate as a wastewater only measure.</p>	<p>Treatment works compliance is heavily dependent on asset management and performance, and therefore a good indicator of non-infrastructure asset health. This is also an additional common performance commitment that relates to the health of the environment.</p> <p>We are using the definition of treatment works compliance in the Environmental Performance Assessment (EPA), which includes both water and wastewater treatment works. We consider that it is better regulatory practice for companies to report the same metric to both us and the Environment Agency in this case. We note that water treatment works make up a relatively small proportion of all treatment works for most water and sewerage companies. Companies can choose to split any ODI payments between the wastewater and water price controls to take account of this. Our business plan table App1 allows companies to specify this split in advance.</p>

The common performance commitments rely on good-quality, consistent definitions. We have supported companies working together (co-ordinated by Water UK, and working with UKWIR), to agree common definitions on leakage, supply interruptions and sewer flooding. We agree with many consultation respondents that metric definitions and reporting should be consistent across companies. For seven⁵ of the common performance commitments we are taking forward a joint project with Water UK, completing early in 2018, to further improve the consistency of the definitions and reporting against them.

Some companies might not be able to report data that is fully consistent with the new definitions for some metrics until 2019-20. We expect companies to implement the common definitions to enable them to be used in final determinations. We will take into account companies' progress towards implementing the common definitions in the outcomes tests in the initial assessment of plans (IAP). We provide guidance on how to set performance commitment levels for new metrics, or metrics with new data below.

As noted above, there were three areas where respondents proposed new common performance commitments. We address each of these in table 3 below:

Table 3 - Proposals for new common performance commitments and our approach for the methodology

Area	Stakeholder views	Our approach
Environment	A number of environmental regulators and non-governmental organisations, considered that there was insufficient emphasis on the environment, and suggested that there should be new common performance commitments on the environment	<p>We fully recognise the importance of companies addressing their environmental challenges through their performance commitments. Our approach to common and bespoke performance commitments incentivises companies to think about the environment and how they relate to this key resource in the following ways:</p> <ol style="list-style-type: none"> 1. Our list of common performance commitments includes leakage, per capita consumption, pollution incidents and treatment works compliance; 2. Our common forward looking resilience metrics, on drought risk and flooding risk are related to the environment;

⁵ The seven common performance commitments the project will look at are: leakage, supply interruptions, internal sewer flooding, per capita consumption, unplanned outage, mains bursts and sewer collapses. External sewer flooding will also be covered. The other common performance commitments have established definitions or there are separate projects to define them.

Area	Stakeholder views	Our approach
		<p>3. We are requiring companies to provide comprehensive coverage of their particular environmental challenges through their bespoke performance commitments, including on abstraction; and</p> <p>4. Companies need to take account of customer preferences and, where appropriate, the impacts on the environment, biodiversity and natural capital, when setting their performance commitment levels and ODIs.</p>
<p>Affordability and vulnerability</p>	<p>Some stakeholders proposed a common performance commitment on affordability and / or vulnerability. Other respondents thought it was very difficult to devise a common performance commitment on affordability or vulnerability that incentivised the right behaviour by companies.</p>	<p>We have a strong emphasis on both affordability and vulnerability in PR19. Affordability is one of the four key themes of PR19. Our price review assessments of cost efficiency, outcomes and financeability will also promote affordability. We are including vulnerability as an explicit test at PR19 for the first time.</p> <p>We are not proposing a common performance commitment on affordability or vulnerability because no single measure captures the complex and dynamic nature of affordability and vulnerability, and because the challenges vary across companies. We consider that our strong emphasis on affordability and vulnerability in PR19 will incentivise companies to address these issues effectively in their business plans. We will build on experience in PR19 and consider common performance commitments for affordability and vulnerability at PR24. (See chapter 3 of the main methodology document).</p>
<p>Water quality - The DWI's Event Risk Index (ERI)</p>	<p>The DWI proposed Event Risk index (ERI) to complement the Compliance Risk Index (CRI) on water quality, which is already in our list. The ERI looks at: the seriousness of water quality events, how the company managed the event and the impact of the event.</p>	<p>Both ERI and CRI are new measures. However, ERI is currently behind CRI in its development. Based on the information we have currently, we consider that ERI could be an excellent metric of water quality events and their impacts on customers. As such, we are proposing to include ERI in the asset health long list of optional metrics (with common definitions), to supplement the common asset health performance commitments.</p>

2.2 Resilience performance commitments

Our approach to resilience performance commitments supports our general approach to resilience detailed in Chapter 5 and is covered in other sections of this appendix. However, for ease of reference we discuss these below. There are five aspects of our approach to resilience performance commitments:

- Day-to-day operational resilience is covered by the common performance commitments on metrics such as water supply interruptions and sewer flooding;
- The underlying asset health of the industry is captured by the common asset health performance commitments, such as mains bursts and sewer collapses. Companies' bespoke performance commitments on asset health also cover this.
- We have two forward-looking common performance commitments on the risk of severe restrictions in a drought and the risk of sewer flooding in a storm.
- Companies must propose bespoke performance commitments to address their own particular resilience challenges.
- Companies must propose performance commitments for five years, with longer-term projections for at least a further ten years.

2.3 Asset health performance commitments

2.3.1 Background to asset health performance commitments

Asset health is a key area of network and service resilience. Asset health is an indicator of a company's ability to continue to perform its functions for the benefit of customers and the environment, now and in the future. Poor asset health is when assets are allowed to deteriorate to a point where the risk of failures (which will impact on customers and the environment) becomes unacceptably high. The health of companies' assets is a crucial element of achieving resilience in the water and wastewater sector in England and Wales.

Asset health contributes particularly to the reliability and response / recovery elements of infrastructure resilience (as described by the [Cabinet Office](#)). Asset health is difficult to measure, particularly with so many assets located underground, and the wide variety of above-ground assets. Metrics of asset health are imperfect. It is, therefore, appropriate that asset health outcomes are only part of our, and other stakeholders', approach to ensure companies maintain asset health. For example,

our initial assessment of plans will test companies on their assurance around long-term operational resilience, including their approach to asset health. We can also carry out targeted reviews of asset health issues as we did earlier this year (see below).

2.3.2 PR14 approach to asset health

At PR14 we did not prescribe that companies should adopt any particular approach to asset health. This change at PR14 enabled companies to take full ownership of their approaches to asset health in their business plans. This put the onus on companies to engage with and measure what mattered to their customers and allowed for innovation. We assessed companies' approach to asset health as part of our assessment of company business plans in PR14.

Companies used the opportunity to develop business plans that reflected their customers' and stakeholders' preferences. However, the variety of approaches companies took to asset health performance commitments, meant there was a lack of consistency in the definitions and types of indicators. This made it difficult to compare cross-industry performance. In addition, many companies combined asset health measures into aggregated performance commitments. This was less transparent to stakeholders. It also made it possible for companies to offset poor performance on one measure with better performance on another measure.

2.3.3 Our draft methodology proposals

We proposed four common performance commitments on asset health with the expectation that companies would propose bespoke commitments to supplement these. We proposed that companies could base their bespoke asset health performance commitments on common definitions taken from our proposed asset health long list of metrics. We also proposed that companies should not be allowed to aggregate different asset health metrics into performance commitments. We consulted on our asset health expectations for PR19.

Following the consultation, we invited all companies, quality regulators and CCWater to join an email group to refine the asset health metrics and their definitions.

2.3.4 Stakeholder feedback

We discussed stakeholders' feedback on the four common asset health performance commitments, including on definitions, above in table 2.

Respondents generally welcomed the choice of metrics in the long list of asset health indicators with standard definitions. Companies appreciated the flexibility this approach offered when proposing their bespoke performance commitments.

Two companies considered that asset health metrics should not be included in the outcomes framework as they focus too much on inputs. They considered asset health metrics were more appropriate for annual reporting or performance monitoring. The DWI stated that with forthcoming changes in the drinking water quality regulations and the introduction of the new water quality CRI, a number of the drinking water quality indicators in the asset health long list should be removed. This is because companies will no longer collect data for those metrics routinely.

Respondents generally appreciated the transparency and accountability our proposed ban on aggregated performance commitments would create for monitoring and performance assessment.

2.3.5 Our approach to asset health performance commitments for PR19

Our approach to asset health does not focus on the age or condition of assets, but on the ability of assets to provide services into the future, which is what matters to customers.

The remainder of this section sets out our approach to asset health performance commitments for PR19, covering:

- our expectations for asset health outcomes;
- the common asset health performance commitments;
- bespoke asset health performance commitments; and
- our approach to aggregation.

Our expectations on asset health outcomes

Below we set out our expectations on asset health outcomes. By providing clear expectations about companies' asset health performance commitments and their engagement with customers, CCGs and other stakeholders, we expect companies to submit high-quality asset health proposals. We are confirming the asset health expectations we consulted on in July.

Box 1 - Asset health outcomes expectations for PR19

Asset health outcomes expectations for PR19

1. Companies should clearly present in their business plans, their approach to asset health and which of their performance commitments and ODIs relate to it.

2. Companies should engage with their customers and CCGs on how their asset health metrics protect current and future customers and the environment.
3. Companies should ensure their asset health performance commitments are easy to understand.
4. Companies should ensure their asset health performance commitment levels are stretching.
5. Companies should explain to their customers, CCGs and us, the size of their asset health underperformance penalties (and any outperformance payments)⁶.
6. Companies should submit their asset health performance commitment definitions to us ahead of business plans.
7. Companies must include our four common asset health performance commitments as part of their asset health commitments.

Common asset health performance commitments

As described above, companies must have four common performance commitments for asset health (two for water and two for wastewater):

1. mains bursts;
2. unplanned outage;
3. sewer collapses; and
4. treatment works compliance.

We are taking forward a joint project with Water UK, completing early in 2018, to further improve the consistency of the definitions and reporting against the first three of these metrics. The fourth metric is an Environment Agency metric used for its Environmental Performance Assessment.

We think common performance commitments are important for asset health so that customers can be assured that companies are maintaining their asset base appropriately to continue to be able deliver services effectively in the future. The common performance commitments, with standardised definitions, also provide customers, CCGs and us with comparable information to assess how stretching companies' performance commitments are.

⁶ We want companies to report their asset health underperformance penalties (and any outperformance payments) to us as a proportion of RoRE.

Bespoke asset health performance commitments

The third element of our approach to asset health is that companies can select additional bespoke asset health performance commitments from a long list of metrics with standard definitions, or others, not on the list. We have amended the list following respondents' comments. The changes in the drinking water quality regulations have caused us to remove a number of the previous water quality metrics, because companies will no longer collect data for those metrics routinely, and has reduced the overall length of the list.

The standard asset health metrics provide customers, CCGs and us with comparable information for the companies who select the same metrics.

Table 4 - Long list of asset health performance commitments that companies can choose from

Water asset health metrics	Wastewater asset health metrics
Event Risk Index (ERI).	Sewer blockages.
Properties at risk of receiving low pressure.	External sewer flooding.
Customer contacts about water quality (as included in Discover Water).	Percentage of population equivalent, served by sewage treatment works with numeric limits, which were non-compliant with: sanitary look-up table limits or nutrient limits, urban wastewater treatment directive (UWWTD) look-up table limits or nutrient limits.
Compliance Risk Index (CRI) – water treatment works (sub category of CRI).	Unplanned maintenance – non-infrastructure.
CRI – supply points (sub category of CRI).	
CRI – service reservoirs (sub category of CRI).	
CRI – water supply zones (sub category of CRI).	
Unplanned maintenance – non-infrastructure.	

We have created a [webpage](#) of the long list of asset health metrics and the 14 common performance commitments. This contains the latest definitions and their status. Final definitions will appear on the [webpage](#) when they are complete.

Under our approach to asset health, companies can propose other asset health performance commitments that are not in the long list. This is to encourage companies to innovate and develop new asset health measures to reflect their customers' preferences and their particular asset health challenges. If companies are using their own bespoke asset health performance commitments these must be clear and well defined.

No aggregation of asset health metrics

The fourth aspect of our approach is to disallow companies from aggregating asset health metrics into performance commitments, for example, basket or matrix performance commitments.

Our approach applies to all performance commitments, not just asset health. Aggregation enables companies to offset poor performance in one area with good performance in other areas. This means that a company may not deliver as effectively as it would against individual performance commitments on asset health. Aggregated asset health performance commitments are also less transparent to stakeholders about performance on particular metrics.

2.4 Bespoke performance commitments

Bespoke performance commitments are an important element of the outcomes framework for PR19. As well as the common performance commitments, we expect companies to propose bespoke commitments as part of their outcomes package for PR19. Companies have the freedom to engage widely with their customers and local stakeholders, to propose bespoke performance commitments that **reflect their customers' particular preferences**. Bespoke performance commitments also **enable companies to be innovative**, and to propose commitments relating to particular issues that affect their operating area (for example, clean beaches or local environmental concerns).

2.4.1 Our draft methodology proposals

In our draft methodology proposals we consulted on bespoke performance commitments being clearly defined and including few or no exemptions in their definitions.

We proposed requiring companies to cover five areas with their bespoke performance commitments (see below).

We proposed that companies would need to justify why they did not intend to continue with any of their PR14 performance commitments.

2.4.2 Stakeholder feedback

There was general agreement to the five areas that we had proposed, with one respondent supporting the fact that they were suitably broad.

Several respondents commented that bespoke commitments should be truly bespoke. They were of the view that the large number of common performance commitments, coupled with retaining the PR14 commitments (as well as the areas bespoke commitments should cover), left companies with little opportunity for truly bespoke commitments, without having a very large number of performance commitments overall.

One respondent queried how to treat existing bespoke performance commitments that did not align with the proposed common performance commitments.

Several respondents welcomed the potential for environmental and resilience bespoke measures to go beyond statutory obligations and to promote innovative measures, such as working with others to apply sustainable catchment approaches and collaborating with other organisations on flood prevention improvements.

Several respondents queried whether we meant to require only one bespoke environmental performance commitment and were concerned companies would reduce their number of environmental performance commitments at PR19.

One respondent questioned whether vulnerability bespoke performance commitments should have financial incentives attached to them because companies should not benefit from this.

Some respondents expressed concern that the AIM duplicates the environmental regulatory process, which addresses over-abstraction through appropriate mitigation and / or licence changes. Other respondents agreed with our approach. They recognised the environmental benefits that AIM can encourage, including delivering solutions more quickly or achieving outcomes that go beyond current regulatory obligations.

2.4.3 Our decision on bespoke performance commitments (including how we have addressed consultation responses)

We confirm that:

- companies should ensure that the definitions of their bespoke performance commitments are clear;
- there should be no, or very few, exemptions included in the definitions of bespoke performance commitments. Any exemptions need to be well justified and supported by customers;
- companies need to justify why they do not intend to continue with any of their PR14 performance commitments. We will expect evidence for removing a performance commitment, particularly if the company was performing badly

on it during the last control period. Companies whose PR14 bespoke performance commitments are similar to, but different from, the new common performance commitments can use that as a rationale to exclude those PR14 bespoke performance commitments for PR19, where appropriate; and

- companies' bespoke performance commitments are subject to our standard approach to financial ODIs. This is that we expect a company to propose a financial ODI for its performance commitment or to explain to us why this is not appropriate.

The areas we consider it to be important for all companies cover with their bespoke performance commitments are:

- the different price controls (water resources, wastewater network plus etc.)⁷;
- vulnerability;
- the environment;
- resilience; and
- abstraction, using the AIM.

There was general support for our approach to bespoke performance commitments. We acknowledge that requiring companies to cover certain areas with their bespoke commitments restricts their choice of performance commitments to an extent. We are taking this approach because at PR14 we had to intervene to require companies to include performance commitments in areas important to their customers (such as the environment and drinking water quality). This was due to the fact that companies had not covered these specific areas themselves. We want to make sure that all companies cover the five areas, but also that they have the flexibility to do so by proposing bespoke performance commitments that reflect local preferences and allow for innovation.

We expect companies to provide good coverage of these areas and we are not implying that companies should be restricted to one performance commitment per area.

The table below sets out the five areas that performance commitments must cover and our rationale for companies having to cover each area with bespoke performance commitments. If a company chooses not to cover one of these areas with its bespoke performance commitments it will need to provide justification for its approach. The table also provides example metrics. If companies use these metrics, using standard definitions would be beneficial to make it easier for stakeholders to understand and compare performance.

⁷ For the residential retail control we are not expecting many bespoke performance commitments because C-MeX will incentivise companies to improve their customer experience.

Table 5 - Areas bespoke performance commitments must cover

Areas	Rationale	Example metrics
The different price controls	<p>Companies need to show what they will deliver for the revenue they receive from customers under each price control.</p> <p>This does not necessarily need to be a performance commitment specific to each control. It could be one that is split across price controls.</p>	<p>Bioresources example: compliance with sludge disposal standard.</p> <p>Water resources examples: restrictions on use of water; resilience of impounding reservoirs; abstraction licence compliance.</p> <p>Please note that companies wholly or mainly in Wales should have at least one bespoke performance commitment for their business customers, who are not covered by the competitive business retail market.</p>
Vulnerability	<p>We want companies to provide sensitive, well-designed and flexible support and services for customers in circumstances that make them vulnerable. After engaging with their customers and local stakeholders, companies can propose bespoke performance commitments to address vulnerability issues.</p>	<p>Appendix 1 of the methodology statement includes six common metrics for vulnerability, which we will collect through the business plan tables.</p> <p>However, we encourage companies to propose innovative, bespoke performance commitments on vulnerability.</p>
Environment	<p>A company's actions can impact on the environment both positively, through good stewardship of the natural environment, and negatively, through impacts such as pollution incidents.</p> <p>Water companies' businesses are inextricably linked with the environment. Companies' customer research at PR14 showed that customers value the protection of the environment.</p>	<p>Operational carbon emissions (ktCO₂e).</p> <p>Energy intensity for water produced / carbon emissions.</p> <p>Examples suggested by Natural Resources Wales:</p> <p>Kilometres of river with water quality improved as a result of wastewater investment.</p> <p>Volume or proportion of surface water diverted/removed from the public sewer system.</p> <p>Number of permit breaches or CSO discharges in Shellfish and Bathing Water.</p> <p>Examples suggested by the Environment Agency:</p> <p>Kilometres of river enhanced or protected through completion of measures agreed in the Water Industry National Environment Programme (WINEP)</p> <p>Percentage of schemes incorporating sustainable urban drainage (SuDs).</p> <p>Number of water bodies improved or protected by catchment management.</p> <p>Examples suggested by Natural England:</p> <p>Number of Sites of Special Scientific Interest (SSSIs) or number of hectares of land designated as SSSI that changed from unfavourable recovering condition, or from unfavourable recovering condition to favourable condition, as a result of actions taken by the water company.</p>

Areas	Rationale	Example metrics
		<p>Specified increase in one of more of the following provided by catchment management delivery actions taken by the water company: the area of priority habitat and / or pollinator habitat; length of naturalised watercourse length or area of more naturally functioning water body / wetland (including for flood management); projections of quantity of stored carbon. (This could include delivery of one or more large-scale catchment projects that enable biodiversity enhancement and wider public benefits).</p> <p>Specified increase in the total score of Defra's biodiversity offsetting metric, when it is applied to land managed and/or owned by the water company.</p> <p>Examples suggested by Blueprint for Water:</p> <p>Water Framework Directive water body status improvement.</p> <p>Proportion (%) of total investment delivered through third sector partnership projects or number of partnerships.</p> <p>Natural capital account created and commitment to grow it through investment period.</p>
Resilience	<p>Resilience is one of the four themes of PR19.</p> <p>While we have a number of common performance commitments relating to resilience, we recognise that resilience has many facets.</p> <p>We expect companies to reflect the resilience issues that are most relevant to their region and customers, in their bespoke performance commitments.</p>	<p>UKWIR published a report in July 2017 on resilience performance metrics. The metrics included:</p> <p>Expected average number of customers affected by large scale interruptions > 12 hours (number per year).</p> <p>Percentage of population supplied by single supply system >25,000.</p> <p>Unprotected works within flood risk zones (number or population served).</p> <p>Wastewater treatment works sites made resilient to future extreme rainfall events.</p> <p>Number of customers affected by loss of containment from the wastewater system (over a given time), possibly limited to events excluded due to extreme weather.</p> <p>Percentage of pipes under capacity for a 1-in-30 year or 1-in-50 year rainfall event.</p>
Abstraction incentive mechanism (AIM)	<p>Reducing abstraction at environmentally-sensitive sites, at times of low flows, is important to protect the environment, especially given the challenges of climate change and population growth.</p>	<p>We expect each company to suggest a bespoke performance commitment, in line with the AIM guidelines we published in February 2016 (updated for improvements to site identification as described below).</p> <p>There is more detail in the following section.</p>

2.4.4 Abstraction incentive mechanism (AIM)

We require all companies to have a bespoke performance commitment related to the AIM for PR19. We issued [guidelines on the AIM in February 2016](#).

The AIM intends to encourage water companies to reduce the environmental impact of abstracting water at environmentally-sensitive sites during defined periods of low surface water flows. This will help to improve the resilience of water supplies and ensure that it is provided in a more sustainable way. Our environmental stakeholders have provided positive feedback on the AIM.

As identified in the draft methodology and in response to the consultation concerns raised, the AIM can support the formal abstraction licence process where reductions in licence quantities may be necessary for a range of environmental drivers (identified through the Environment Agency's Water Industry National Environment Programme (WINEP) and Natural Resources Wales' National Environment Programme (NEP) processes). For example, AIM can help identify temporary and voluntary solutions that benefit the environment while more permanent solutions, including licence changes, are investigated and implemented.

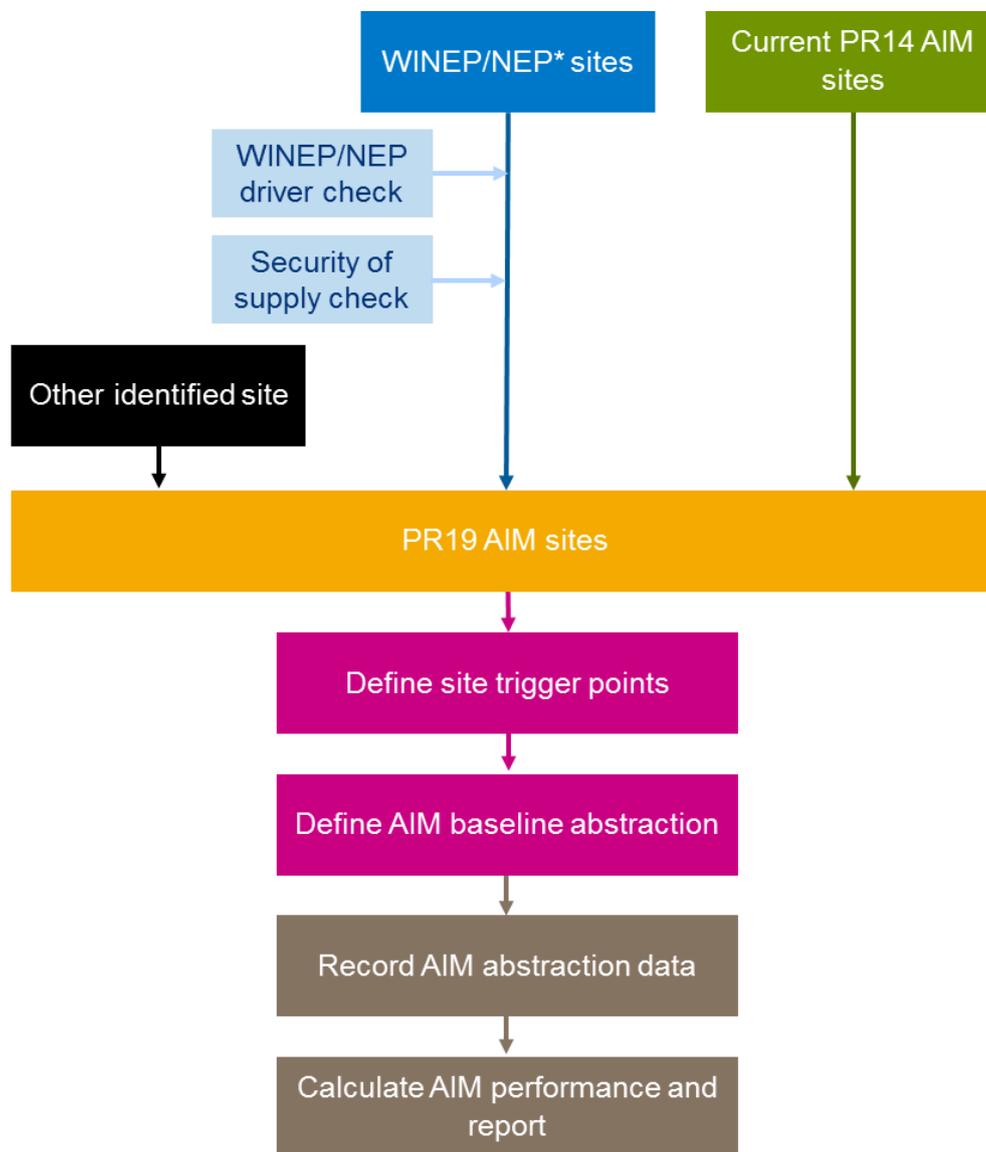
Our decision on the AIM for PR19

We expect all companies to adopt the AIM at PR19. Companies will be able to engage with their customers and stakeholders to design an appropriate version of the AIM for them.

Companies should continue with their current AIM sites at PR19, unless they can justify why this should not be the case. Companies should also justify their reasons if they make any changes to how the AIM applies to existing AIM sites (for example, the AIM trigger points).

For PR19 we expect companies to use the Environment Agency's WINEP or Natural Resources Wales' NEP lists as starting points for AIM site identification and selection.

Figure 1 - The process for the abstraction incentive mechanism (AIM)



*** WINEP – Water industry national environment programme, NEP – National environment programme**

We expect companies to choose sites from the WINEP/NEP lists that are suitable for the purposes of AIM – where a reduction in abstraction will provide an environmental benefit. The WINEP/NEP drivers will be useful to check those sites where abstraction and low flows are the cause of environmental harm. Companies should identify suitable sites in liaison with the Environment Agency or Natural Resources Wales and provide evidence of their engagement.

The diagram shows that companies should check that the abstraction sites have no impact on security of supply. For example, sites should have an existing alternative source of water or bulk supply readily available to meet the demand that would normally come from the AIM site. Alternatively, they should have some other means of reducing abstraction from the AIM site, for example, demand management.

Companies should ensure that no sites are included in the AIM where the replacement water will be taken from the same source, thus having the same environmental impact.

Companies can apply their own additional checks when identifying suitable AIM sites, but should engage with local environmental stakeholders (including the Environment Agency or Natural Resources Wales) when doing so. Companies will have to provide a good justification for any further check that reduces the number of AIM sites.

If, following the application of well-justified checks, a company does not have any suitable sites for AIM, a company should consider sites not identified in the WINEP lists for inclusion in the AIM. For example, companies could consider sites where there is evidence that current abstraction rates are causing harm and that reductions in abstraction at low flows will provide environmental benefit. Companies should also engage with their local stakeholders on such sites.

Companies should set the AIM trigger point (the low flow or low ground water level below which the AIM applies), calculate the baseline abstraction level and report on AIM in accordance with the [AIM guidelines](#).

Financial incentives on AIM

The AIM will have financial incentives attached to it at PR19. This is to give companies a greater incentive to reduce their abstraction at environmentally-sensitive sites at low flows. Two companies, United Utilities and Wessex Water, currently have versions of the AIM, which include financial incentives.

Based on [the AIM taskforce findings](#) we are proposing three options that companies could use to set their AIM outperformance and underperformance payments. These are outlined in the table below. We have presented the approaches in our order of preference, from the ideal approach (the incentive relates to the environmental benefit delivered) to less ideal approaches, which might be more practical in some cases. However, it is for companies to propose their AIM incentives following engagement with their local stakeholders.

Table 6 - Methods for setting outperformance payments and underperformance penalties for the AIM

Preference	Approach	Description
First	The environmental value of abstraction reduction, relative to baseline abstraction.	The incentive would be calculated based on an assessment of the value of the environmental gains (including any biodiversity or natural capital gains) delivered by the revised abstraction policy.
Second	Customer willingness to pay for abstraction reduction, relative to baseline abstraction.	The incentive would be calculated based on customers' willingness to pay for the environmental improvement delivered by the AIM.
Third	Short-run marginal cost to use an alternative source (or a multiple of this cost).	The incentive would be calculated by the difference in operating cost between the AIM source and the cost of alternative sources. These costs will generally reflect marginal operating costs, but may include other cost differences. A multiple of the difference in operating costs (e.g. 1.2) could be used to provide an incentive beyond cost recovery. Alternatively, a multiplier of less than 1 could be used to only part-fund the additional financial cost of reducing abstraction at the AIM site.

Companies should include their information on the AIM in business plan table in appendix 3.

2.4.5 Gap sites and voids

We published research on [retail services efficiency](#) and hosted a stakeholder event in September to discuss retail services efficiency. We subsequently engaged with water companies to test our thinking in relation to potential bespoke performance commitments on this issue.

We have concerns about water companies' management of gap sites and voids⁸ and the incentives they have to manage them appropriately. Water companies have varying levels of voids and gap sites, manage them differently and face different circumstances.

In this context, we require water companies to come forward with bespoke performance commitments on gap sites and voids, for residential retail and the business retail market, or, justify why this is not appropriate. There is more detail on our reasoning and approach in chapter 8 of the PR19 final methodology. We

⁸ A gap site is a property where water and/or wastewater services are being consumed, but the property is not on a water company's system and is therefore not billed. Voids are properties classed by water companies as being vacant.

encourage wholesalers to engage with retailers on this bespoke performance commitment.

We are mindful that, if designed in the wrong way, these performance commitments could create perverse incentives. Water companies should therefore ensure that their bespoke performance commitments encourage the right behaviour. One example of a metric for water companies to consider is the percentage of connected properties that are classed as void in: a) the residential market; and b) the business market⁹.

2.5 Transparency of performance commitments

The outcomes framework is one of the most customer-facing elements of the price review. For the engagement process to be effective it is important that outcomes, and the performance commitments that support them, should be easy for customers and other stakeholders to understand. It is also important that the performance commitments relate clearly to the outcomes that companies are pursuing.

More transparent performance commitments will increase the reputational incentive for companies to improve their performance. This is because customers and CCGs can more easily challenge a company's performance when its performance commitments are easy to understand. Effective dissemination of companies' performance information will also increase the reputational impact of performance commitments. Our decision is that we will promote more transparent performance commitments at PR19 by:

- introducing principles to make performance commitments easier to understand;
- disallowing aggregation of sub-measures, for example into basket, matrix or index performance commitments;
- requiring companies to explain in their business plans, how they will disseminate their performance information to ensure it is visible to customers, CCGs and other stakeholders; and
- making performance commitments more focused on customers' preferred outcomes through reviewing the approach to scheme-specific performance commitments.

⁹ Water companies should use the same definition of voids and connected properties as in their Annual Performance Reports.

We consulted on our approach to the transparency of performance commitments in July and no respondents disagreed with it. One respondent noted that it is vital that the common and bespoke performance commitments are transparent.

2.5.1 Transparency principles

We confirm the principles companies should follow when defining their performance commitments:

- **Clear** – use plain English as much as possible, avoid jargon, and use technical terms only if they are well explained;
- **Unambiguous** – definitions should leave no room for doubt about what is being proposed or measured;
- **Complete** – the definitions should describe any material points of relevance, which a company might later rely on when reporting its performance; and
- **Concise** – the definitions should be as short as reasonably possible, to enable customers, CCGs and us, to engage effectively with the definitions.

There is some tension between the principles of ‘complete’ and ‘concise’. The new consistent definitions of leakage, supply interruptions and sewer flooding are quite long. We will consider whether we should develop, with the industry, short summaries of the definitions to be used in the PR19 determination documents.

2.5.2 Ban on aggregation of performance commitments

We are disallowing any aggregated performance commitments at PR19. This is to increase the transparency of performance commitments so that they will be easier for customers to engage with them, CCGs to challenge them and us to evaluate. It will also increase the incentive for a company to deliver against each of its commitments to customers, as the company will not be able to offset poor performance on one metric with better performance on another one.

The reason for our approach is that, at PR14, some companies adopted performance commitments that were aggregated from a number of sub-measures; many of which related to asset health. In an aggregated performance commitment, a failure to reach a particular level on one sub-measure can be offset by a good performance on another sub-measure. As a result, aggregated performance commitments do not hold companies to account as effectively as individual performance commitments on specific metrics. Also, aggregated performance commitments do not give a clear picture to stakeholders about a company’s performance.

We acknowledge that C-MeX, the Drinking Water Inspectorate's (DWI's) Compliance Risk Index and AIM involve aggregation to some extent. However, these are distinct cases because they aggregate together very similar elements (customer surveys, water quality compliance failures and different abstraction sites) rather than different measures, and so hold companies to account for performance on a particular issue. They are also produced by, or under guidance from, regulatory bodies after consultation with stakeholders. This provides greater assurance to customers about their design.

2.5.3 Disseminating performance information effectively

Companies can make their performance commitments more transparent to customers by effectively disseminating information on their performance. We require companies to explain in their business plans, how they will disseminate their performance information during the 2020-2025 period to customers, CCGs and other stakeholders.

We expect companies' proposed approaches to take account of new communication channels and tools, for example, the Discover Water dashboard.

We will assess companies' approaches to disseminating information as part of our initial assessment of plans.

2.5.4 Scheme-specific performance commitments

Scheme-specific performance commitments are performance commitments related to the delivery of a particular scheme, rather than a service aspect that matters to customers. We agreed to a number of these performance commitments at PR14. This was a way of ensuring that customers were refunded if the particular scheme covered by the commitment was not delivered. In effect, these scheme-specific performance commitments acted more as cost adjustment mechanisms than customer-facing performance commitments.

In our chapter on cost assessment in the main PR19 final methodology document we explain that we will set a cost allowance based on the full extent of the environmental programme a company anticipates being required, as long as the company proposes an appropriate cost adjustment mechanism to account for the potential discrepancy between the scale of the assumed and confirmed environmental programmes. This will remove the need for companies to propose scheme-specific performance commitments in these cases.

Where companies propose any scheme-specific performance commitments, we confirm the following principles and process improvements relating to them:

- We want to see companies focusing on delivering what really matters to their customers, rather than the delivery of certain outputs and schemes; and
- Companies could use more customer and environment-focused performance commitments than scheme-specific performance commitments in most circumstances.

There are some situations where it might be appropriate to set scheme-specific performance commitments. These include:

- schemes with extended delivery times beyond 2025, or, that deliver inter-generational benefits to customers;
- schemes where the companies' existing performance commitments do not sufficiently cover the benefits of the schemes, and therefore, would not compensate customers sufficiently for delay and / or non-delivery;
- schemes where the companies' existing performance commitments could be adjusted to sufficiently cover the benefits of the scheme, but doing so would move the existing performance commitments too far away from the original engagement with customers; and
- schemes where there is a high degree of uncertainty (legal or technical) associated with completion.

However, in all such cases, companies should consider whether their customer- and environment-focused performance commitments could capture the benefits of such schemes instead.

Companies should accompany applications for special cost claims, with their proposed approach to protect customers (in the event of delay or non-delivery of the scheme).

If a company considered that a scheme-specific performance commitment was necessary to protect customers, the following approach should apply:

- A company would engage with its customers and CCGs on any scheme-specific performance commitments, as part of its engagement process on all its performance commitments;
- A company would submit the details of a scheme-specific performance commitment alongside its special cost claim. This should include an explanation of how their performance commitments and ODIs will ensure customers will be compensated in the event of non-delivery or delay. The

proposed compensation would be relative to the costs customers would be paying, and relative to the benefits of the scheme the customers would be foregoing.

- A company would explain what alternatives to scheme-specific performance commitments and ODIs it had considered and what engagement it had undertaken to support its approach. The company would also explain why the company did not consider the alternatives were appropriate.

These process improvements will enable us to scrutinise any scheme-specific performance commitments and ODIs as part of the assessment of companies' special cost claims; and to do so earlier in the price review process than at PR14.

2.5.5 Data improvements and methodology changes

An important element of the transparency of performance commitments is that customers can trust that their definitions will remain unchanged and that ODI payments will only relate to real performance changes, and not definitional, methodological or data changes.

We expect companies to commit to keeping the definitions of their performance commitments unchanged during 2020-25 and to follow our procedures for any unavoidable changes. We expect companies to commit to their customers, that their ODI payments will only relate to real performance changes, and not definitional, methodological or data changes.

For the current price control period we published Information Notice [IN 16/07 Changes to outcomes in the 2014 price review company-specific appendices](#). This notice sets out our policy and the limited circumstances in which we consider companies should be able to make changes between price reviews to: their outcomes, performance commitments and ODIs. This policy will apply for 2020-25, unless we replace it with an update.

2.6 Setting stretching levels for performance commitments

To maintain customers' trust and confidence in the outcomes regime it is important that they can be sure that companies' performance commitment levels are appropriately stretching, and that any outperformance payments are only available for outperformance beyond those stretching levels. Stretching performance commitment levels challenge companies to achieve both a higher level of service, and a more resilient service performance. They encourage companies to improve their services to current customers, future customers and the environment. Working

together with our cost assessment tests, more stretching performance commitment levels should help drive greater efficiency in service provision.

More stretching performance commitment levels does not cost customers more money in itself. We have a separate test for cost efficiency, which challenges companies to have efficient levels of cost, and we do not allow companies a higher cost allowance for a more stretching performance commitment. Indeed, doing so would undermine the benefit of more stretching performance commitments for customers. Companies need to make their case separately for additional costs. If a company incurs expenditure to improve its service performance customers will bear a share of that expenditure through totex efficiency sharing, but companies have strong incentives to keep their costs down.

2.6.1 Background

At PR14 companies set their performance commitments at service levels that balanced costs and benefits - a cost benefit approach. This relied heavily on stated preference¹⁰ willingness to pay (WTP) data. In some cases, it was difficult for companies to identify robust information, resulting in a lack of confidence in some proposed service levels. The approach also did not explicitly require companies to take account of potential cost efficiency improvements.

We had concerns about the lack of stretch in some companies' performance commitments at PR14. It reflected, in part, a lack of comparative information being available to customers and CCGs. As a result, we carried out "comparative assessments" for five performance commitments:

- water quality compliance;
- water quality contacts;
- water supply interruptions;
- wastewater pollution incidents; and
- internal sewer flooding.

We found there were considerable differences in companies' proposed commitment levels for very similar performance commitments. A number of stakeholders also identified this. We intervened to set performance commitment levels based on historical upper quartile performance. This intervention was for companies who had not set themselves a performance commitment that was at least as good as the

¹⁰ This is where people are asked to state their valuations in surveys, rather than inferring those valuations from actual choices as "revealed preference" methods do.

historical upper quartile performance level. We used historical data from 2011-12 to 2013-14 to set the upper quartile.

Since PR14 we have new data on 2014-15, 2015-16 and 2016-17 performance. There were a number of cases in which a company had outperformed its performance commitment (for some, or all, of the next five years) either before the price control started, or in the first year of the price control period. This was the case for 15% of performance commitments in 2014-15, and 21% in 2015-16.

This made some performance commitments for the rest of the period much less stretching than we expected at PR14. This might reflect companies making early progress on their performance commitments in 2014-15. However, it could also mean that the initial performance commitment levels were too easy for companies, despite customer engagement, challenge from CCGs and our review at PR14.

In our May 2016 [Customer engagement policy statement and expectations for PR19](#), we recognised the issues associated with WTP data, and highlighted that we expect companies to place a greater weight on building a robust, balanced and proportionate evidence base. We also stated that companies should be considering other valuation methods (such as, revealed preference WTP and behavioural economics approaches). We consulted on this as part of the [November outcomes consultation](#). Most stakeholders agreed with this approach.

2.6.2 The Frontier Economics report

Frontier Economics reviewed the approach to setting bespoke performance commitments and ODIs for us in the context of the outcomes consultation and the customer engagement policy statement. Their report supports a role for WTP and customer valuations as a key input when setting performance commitments. The report identifies a number of other possible approaches, which companies should use to challenge the level of stretch in their proposed performance commitment levels. Further details of this work is set out in Frontier Economics' report: [Performance commitments and outcome delivery incentives at PR19](#), which contains its independent view (and should not be seen as Ofwat guidance).

2.6.3 Our draft methodology proposals

In July we consulted on our proposals for companies setting service levels for: bespoke performance commitments; common performance commitments; and leakage.

For **bespoke performance commitments**, we expected companies to challenge their performance commitment levels using the following approaches:

- cost benefit analysis;
- comparative information;
- historical information;
- minimum improvement;
- maximum level attainable; and
- expert knowledge.

If a company had not challenged its proposed level against each of these approaches, we proposed the company would need to explain why it has not done so.

We proposed that companies should:

- use initial service levels for 2019-20 that included forecast improvements;
- use annual data rather than three-year average data (except for leakage);
- have no transition to achieving efficient levels;
- challenge themselves to achieve the forecast upper quartile performance level for 2024-25 from the first year of the price control onwards; and
- assess the overall affordability of their performance commitment proposals.

For four of the **common performance commitments** (water quality compliance, water supply interruptions, internal sewer flooding and pollution incidents), we expected that companies would achieve the forecast upper quartile level for 2024-25 in the first year of the price control. For the other common performance commitments, we proposed that companies used the same approaches to setting performance commitment levels as for bespoke performance commitments, as set out above, but with an increased focus on the use of comparative information.

For **leakage** we proposed that companies challenge their performance commitment levels against a specific set of challenges, one of which was a 15% reduction over the 2020-25 period.

2.6.4 Stakeholder responses on setting performance commitment levels

The forecast upper quartile

Many respondents commented that our challenge in relation to the forecast upper quartile performance commitment level was too stretching. Respondents' comments on this subject were:

- our approach does not incentivise continuous improvement, as it requires companies to achieve forecast 2024-25 upper quartile performance from 2020-21 onwards;
- our approach allows insufficient time for a company to achieve a significant level of improvement in the most sustainable and cost effective way, potentially leading to inefficient behaviour;
- no company will be able to deliver upper quartile performance consistently across all of its performance commitments. A company that achieves upper quartile performance for some metrics, and average performance for others, could incur net underperformance penalties.
- upper quartile performance is very difficult to forecast in advance, especially for performance commitments with new definitions or methodologies.
- companies are likely to incur disproportionate underperformance penalties, at least in the early years of 2020-25. This might reduce trust and confidence in the water sector.
- a company achieving outperformance payments of +3% RoRE, the top of our indicative RoRE range, is very unlikely.
- the views of customers and local circumstances are not sufficiently taken into account in our proposed approach.

Some respondents proposed it would be more appropriate for us to challenge companies to set their performance levels based on the forecast upper quartile on a year-by-year basis, from 2020-25.

Some respondents proposed that performance levels should change dynamically through the period. Other respondents did not support dynamic changes because they can create uncertainty about performance commitment levels and undermine incentives to improve.

Several respondents requested guidance on forecasting upper quartile performance levels, or a joint industry-wide approach to this. They particularly proposed this approach for new metrics or metrics where the definition is changing substantially.

Stretching performance commitment levels and cost

Several respondents requested clarification on how stretching performance levels would be linked to increases in cost. There was concern that more stretching performance commitment levels would lead to additional cost and higher bills, which customers might not support.

Transition to the performance commitment levels

A number of respondents commented that companies should be allowed to transition from their current performance level to their stretching performance commitment levels over a number of years to allow them to deliver the performance improvements in an efficient and sustainable way.

The range of approaches to setting performance commitment levels

Many respondents welcomed the flexible approach to setting performance commitment levels for bespoke and common performance commitments. This included support for using wider information sources of information than stated preference WTP. One respondent questioned how to prioritise the different approaches and what weighting it should give to customers' views. While another noted it would require companies to exercise a degree of judgement when setting their performance commitments.

Several respondents expressed concern that the approaches to setting performance commitment levels did not all take into account local customer priorities or local circumstances. Several commented that customer preferences should underpin all companies' performance commitment levels. One respondent thought that we should set the performance commitment levels.

There were some comments on the individual approaches:

Table 7 - Stakeholder comments on approaches to setting performance commitment levels

Approach	Stakeholder comments on approach
Cost-benefit analysis	Some respondents thought that cost-benefit analysis should remain an important part of setting performance commitment levels, but that the industry should go beyond this approach, especially as there is a lot of uncertainty around calculating marginal costs and benefits. Others thought that most weighting should be given to cost-benefit analysis, with an emphasis on the views and valuations of customers.
Comparative information and upper quartile performance	Some respondents emphasised the importance of comparable data, preferably developed through an industry project, when setting performance commitment levels based on comparative information. Some respondents thought that differences in local circumstances were more important in particular cases (e.g. for sewer flooding and the CRI).
Historical information	Several respondents agreed that companies should use historical information, but considered our suggestion that companies should challenge their performance commitments against the best historical improvement achieved, would not lead to scope for companies to achieve outperformance payments.

Initial service levels

Respondents generally supported our approach to companies forecasting their initial service levels for 2019-20.

Setting performance commitment levels for new and updated metrics

Many respondents were concerned about setting performance commitment levels for new and updated metrics because there would be limited historical data. Several respondents added that forecasting the upper quartile level in the future would be particularly difficult for new and updated metrics. A number of respondents raised these issues in relation to CRI, the new water quality compliance measure for which they were concerned how to set performance commitment levels if the data moved significantly year on year.

Some respondents proposed setting performance commitments based on percentage improvements, or, setting performance commitment levels in 2020, when more data would be available.

Asset health

Several respondents questioned whether the objective for asset health performance commitments should be to maintain stability rather than make improvements. One respondent considered that maintaining stability on some metrics might be stretching in itself, and that improving levels of service might not be cost beneficial. Another respondent agreed with our proposal that asset health performance commitments should involve companies aiming for upper quartile performance levels. One respondent considered that companies should consider asset health performance commitments on a longer-term basis separately from the other performance commitments.

Three-year averages and deadbands

Respondents had a range of views on setting performance commitment levels for metrics that are affected by external factors, such as the weather. Some respondents agreed with our preference for single-year performance commitments, with a subset of these preferring to use deadbands to allow for the effect of external factors. Others preferred using three-year averages, particularly for metrics such as internal sewer flooding and PCC.

Respondents also raised the potential impact of external factors on reporting performance and on customer bills. Using single-year performance commitments might give customers an unwarranted impression of performance being volatile. In-period ODIs attached to these single-year commitments might make customer bills more volatile than if three-year averages were used.

We have covered the consultation responses on leakage separately below.

2.6.5 How we have addressed the consultation responses

We explain how we have addressed the feedback we received from stakeholders in response to the draft methodology proposals in the sections below on our decisions regarding setting stretching performance commitment levels. We address:

- **Setting the initial service level** (2019-20) in the section of the same name;
- **The forecast upper quartile** – in the section on ‘comparative information’ and the section on common performance commitments where we expect companies to propose forecast upper quartile performance levels;
- **Stretching performance commitment levels and cost** – ‘Other aspects of setting stretching performance commitment levels: affordability’ and in ‘setting stretching performance commitments for leakage’;
- **The range of approaches to setting performance commitment levels** – section ‘Stretching levels for bespoke performance commitments’;
- **Setting performance commitment levels for new or amended metrics** – section ‘Setting performance commitment levels for metrics that lack a continuous times series of historical data’;
- **Setting performance commitment levels for asset health** – sections on ‘Stretching levels for the common performance commitments’ and ‘Other aspects of setting stretching performance commitment levels: performance commitment duration’; and
- **Three-year averages and deadbands** – section ‘other aspects of setting stretching performance commitment levels: multi-year average or annual data’ and section on deadbands in the section on ODIs below.

2.6.6 Our decisions on setting stretching performance commitment levels

The following sections set out our decisions regarding setting stretching performance commitment levels.

We want to ensure that companies set stretching levels for all of their performance commitments, both bespoke and common. We will assess the level of stretch in all companies’ proposed service levels in the initial assessment of plans. We will retain the ability to intervene to set service levels if companies’ proposals are insufficiently stretching, or if their justification is not well evidenced.

The sections below give more detail on: bespoke performance commitments; common performance commitments; leakage; and PCC. Our proposed expectations for setting levels for common performance commitments and leakage build on, and are consistent with, our proposed approach to bespoke performance commitment service levels.

For performance commitments that have statutory obligations, companies should set service levels in line with those statutory obligations unless they have evidence to show that customers would prefer a more stretching commitment level. During our initial assessment of plans we will review how well companies' proposed performance commitment levels meet our expectations.

2.6.7 Setting the initial service level (2019-20)

The first element of setting performance commitments is setting the initial service level. At PR19 we expect companies to forecast appropriate initial service levels for 2019-20, and for these to influence the level of their performance commitments. CCGs will challenge companies on their forecasts for 2019-20, as well as their performance commitment levels. We will scrutinise the initial service levels at PR19. If we consider them to be inappropriate, after assessing business plans, we will intervene to change them. We encourage companies to use all the relevant information they have to inform their initial service levels.

We discuss below the issue of setting performance commitment levels for metrics that lack a continuous times series of historical data. Our preferred approach, in such cases, is that companies should propose performance commitments based on a percentage change. Where performance commitments are based on a percentage change relative to the outturn value for 2019-20, then there is no longer an issue with forecasting 2019-20 performance because the percentage change can be measured against an outturn value.

2.6.8 Stretching levels for bespoke performance commitments

Our approach to setting stretching performance commitment levels for PR19 is that companies should: engage with their customers on their performance commitment levels; and challenge the level of stretch in their performance commitments with their customers, CCGs and other stakeholders against a range of approaches including:

- cost benefit analysis;
- comparative information;
- historical information;
- minimum improvement;

- maximum level attainable; and
- expert knowledge.

We want companies to challenge themselves against the approaches above so that when engaging with customers they are not using their current performance as the starting point, but starting from what excellent performance looks like.

If a company has not challenged its proposed performance commitment level against each of these approaches, it will need to explain why it has not done so. We are setting out approaches to give companies more flexibility in how they set their performance commitments and because the best approach might vary between different metrics depending on, for example, customers' preferences.

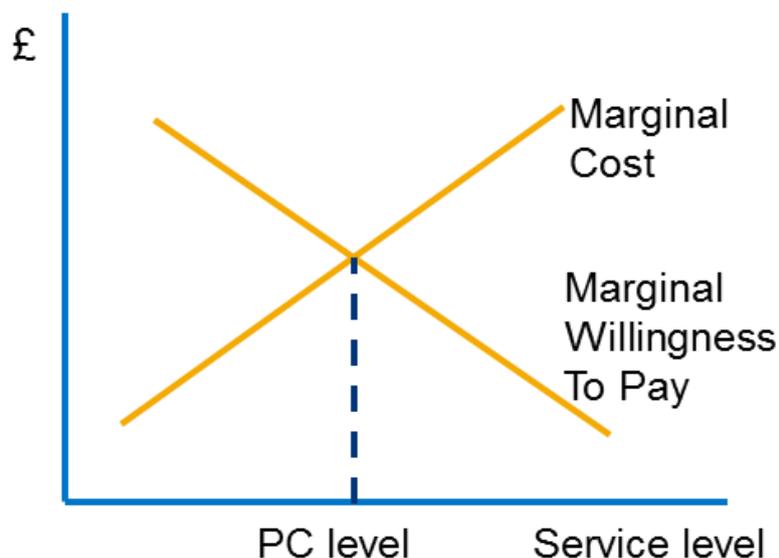
The flexibility of our approach enables companies to take into account customers' preferences. We are explicitly encouraging companies to take into account wider sources of information on customer preferences than stated preference WTP when setting their performance commitment levels.

We describe the six approaches listed above in more detail in the following sections. Companies can propose their own approaches to challenging their performance commitments in addition to these.

Cost benefit analysis

At PR14 we prescribed a default approach for companies to set performance commitment levels. To deliver this, companies needed to identify and understand their marginal costs (MC) and marginal benefits, in particular customers' marginal WTP. The service level was set where the two lines intersected (see diagram below). This is called the cost benefit analysis method.

Figure 2 - The cost benefit analysis method



The aim of our guidance was to ensure the performance commitment level was set at the economic level of service. Our methodology allowed for cases where service levels might be set below the economic level for the reason of affordability. Companies also cross-checked this economic service level against historical data. In their assessment of marginal costs and marginal benefits, companies took into account impacts on: the environment, biodiversity and natural capital, where appropriate. They should continue to do so.

We have improved the cost benefit analysis approach for PR19. When using the cost benefit analysis method to set performance commitment levels for PR19, companies should:

- use multiple sources of evidence on customer preferences, where proportionate to do so; and
- use forecast efficient cost levels.

Multiple sources for cost benefit analysis

Using multiple sources of evidence on customer preferences should enable companies to set more stretching performance commitment levels. In our [customer engagement policy statement for PR19](#), we proposed that companies should not rely solely on stated preference WTP methods to inform their performance commitment levels. Companies should use a wider range of methods where it is proportionate to do so. This might be for performance commitments that are associated with large ODI payments, or where companies are planning large improvements in performance or innovative approaches. Some stakeholders considered that our default approach in the draft methodology proposals was for companies to use

stated preference WTP in their cost benefit analysis. This is not the case and we have amended the business plan tables to avoid giving this impression.

When companies use multiple sources of customer research, companies might have conflicting information from the different sources. There are many ways of drawing inferences from multiple data sources, some of which may be more suited to particular data or performance commitments than others. Companies should test how sensitive their performance commitments are to changing the customer valuation, in the cost benefit analysis. Frontier Economics proposed one way of doing this - by using a “multi-input cost benefit analysis”. CCWater published a consultancy report on [Defining and applying ‘triangulation’ in the water sector](#) in July 2017.

Using multiple data sources will lead to greater scope for judgment in setting performance commitments at PR19. Companies will need to engage with their customers on the factors they take into account. They will then need to explain how they have balanced these factors when setting their performance commitment levels, based on multiple data sources. The role of CCGs will be important in assuring how companies have engaged with their customers on this issue. Independent assurance of how companies have made their judgments based on multiple data sources will also be important.

Cost benefit analysis - marginal costs

On the costs side, it can be difficult for customers and CCGs to challenge a company’s estimate of its marginal or incremental cost. We are requiring companies to report their marginal cost data in the business plan tables and give supporting evidence for their estimates. We expect companies to provide information to their CCGs about how they have calculated their marginal costs. As explained above we expect companies to use forecast efficient cost levels.

With more common performance commitments and more comparable data available at PR19, we will compare companies’ marginal cost data for similar performance commitments and challenge companies where their marginal costs look high. We plan to share anonymised information on the average and range of companies’ marginal costs with CCGs. However, this will only take place after companies have submitted their business plans. Information will not be available to help CCGs challenge the marginal costs underlying companies’ performance commitments ahead of companies submitting their business plans.

One of the main issues with companies’ marginal costs at PR14, was that they reflected current marginal costs to set performance commitment levels for the future. Companies should use forecast efficient cost levels for their marginal cost estimates

for PR19, and should explain how they have calculated them. Companies should also explain how they have treated common costs in their marginal cost estimates.

Comparative information

A key improvement to the outcomes framework for PR19 is that there will be much more comparative information available for many metrics. For example, via [Discover Water](#) and through companies working together, co-ordinated by Water UK, and working with UKWIR to agree consistent definitions for a number of the common performance commitments. Companies might also be able to use comparative data from other sectors or countries in some cases.

Companies should use comparative information to forecast the upper quartile level of performance for each year of the price control period for their proposed performance commitment levels. We have changed our policy on this since the draft methodology proposals following respondents' comments. Our revised approach involves an efficient path of improvement. It avoids the issue raised in response to our consultation proposal, that nearly all companies would have been likely to incur significant underperformance penalties in the early years of 2020-25, with many earning outperformance payments by the end of the period. This could have distorted customers' and stakeholders' views about companies' performance and delivery.

Our revised approach is still much more challenging than our PR14 approach, which used historical upper quartile performance levels. Our approach encourages companies to reflect future improvements in the upper quartile performance level, in their performance commitment levels, so that customers benefit from improved commitments.

If a company does not propose at least a forecast upper quartile level of performance for its performance commitment in each year of the price control period, it will need to justify why it has not done this.

We are not providing guidance to companies on forecasting upper quartile performance so that companies can individually consider what stretching performance will look like in 2020-25 and we can learn from those different approaches.

Historical information

For all performance commitments that are not completely new, historical information should be available. For performance commitments where the definition has changed, historical data (based on a similar definition) can sometimes be used to

assess the degree of stretch in a company's performance commitment relative to past performance.

We expect companies to use information on their best past performance to forecast what their best future performance could be in 2024-25, and to use this information to inform their proposed performance commitment levels throughout 2020-25.

Minimum improvement

Companies should define a minimum improvement for themselves to inform their performance commitment levels. This could be based on evidence from the previous performance of the company or from other companies, taking into account any innovation that took place in the previous price control period. The minimum improvement should also take into account forecasts of future technological improvements. An example of a minimum improvement would be a performance commitment level 20% better than the company's current performance commitment, or performance in the previous price control period (whichever was better). A company will need to justify its performance commitment level against the minimum improvement.

Maximum level attainable

Companies should define the maximum possible level achievable for a given measure, and then work backwards from that level to propose their performance commitment levels.

An example is for the performance commitment, "percentage of population supplied by single supply system". The maximum possible level for this would be zero per cent. A company would then justify why this level was not appropriate or achievable, and what level was. This approach is described in more detail for leakage below.

Expert knowledge

For some performance commitments, such as those for asset health, companies might have expert knowledge about possible improvements that are not captured in the comparative or historical information for the metric. In such cases, companies should inform their commitment levels with engineering expertise and / or models of what stretching improvements can be made in the future, or, justify why they have not done so.

2.6.9 Other aspects of setting stretching performance commitment levels

Multi-year average or annual data

We prefer companies to use annual data for their performance commitments. Annual data is easier to understand and provides more up-to-date information for customers on their companies' performance. While we acknowledge that external factors, such as weather, will influence individual performance commitments, companies are able to provide the context around their performance in their Annual Performance Reports.

We particularly prefer that companies use annual data for their performance commitments with in-period ODIs. This is because one of the main purposes of in-period ODIs, is that they bring outperformance and underperformance payments closer in time to the performance that generated them. Using a three-year average means that there is a greater lag between performance and the associated ODI payments. We have addressed respondents' concerns about bill volatility in the section on ODIs below.

Following the consultation we are changing our position. We will now require companies to use three-year averages for PCC as well as leakage. We agree with those respondents who argued that these two metrics are closely linked, by being different parts of the same water balance calculation. Therefore, we consider that our reasons for applying a three-year average to leakage (see leakage section, below) also apply to PCC.

Performance commitment duration

We expect companies to set performance commitment levels for all performance commitments for five years, and projections for at least a further ten years.

We note, one respondent proposed that this was not long enough for the asset health metrics. Others noted that it was too long for some new performance commitments. We consider that our approach strikes a reasonable balance on the duration of performance commitments. Companies can project their performance commitments more than ten years beyond the price review period, for example for an additional 20-year period to align with WRMPs. Companies can justify why they have provided shorter or longer projections after 2020-25, where necessary.

Transition to efficient levels

A number of respondents commented that companies should be allowed to transition from their current performance level to their performance commitment levels (see

above). As companies are now familiar with the outcomes framework, we expect all companies to propose efficient service levels from the start of the 2020-2025 period with no transition to their stretching performance commitment levels. This is so that customers do not have to wait for the levels of service they have funded companies to deliver.

Affordability

More stretching performance commitment levels does not cost customers more money in itself. We have a separate test for cost efficiency, which challenges companies to have efficient levels of cost and we do not allow companies a higher cost allowance for a more stretching performance commitment. Indeed, doing so would undermine the benefit for customers of more stretching performance commitments. Companies need to make their case separately for additional costs. If a company incurs expenditure to improve its service performance customers will bear a share of that expenditure through totex efficiency sharing, but companies have strong incentives to keep their costs down.

Given the scope for efficiency improvements at PR19, we consider that companies can achieve better service for their customers, at the same time as keeping bills affordable for customers.

Companies can constrain their performance commitment levels to take account of affordability. However, we strongly expect companies to propose stretching performance commitment levels within these constraints.

2.6.10 Stretching levels for the common performance commitments

We want companies to engage with their customers on the appropriate performance commitment levels for the common performance commitments.

Companies should use the above approaches for setting bespoke performance commitment levels (cost benefit analysis, comparative information etc.) to inform their setting of stretching performance commitment levels for the common performance commitments. We particularly expect companies to challenge their performance commitment levels for the common performance commitments against forecast upper quartile performance levels because there is more likely to be comparable data available for them.

We are not differentiating asset health common performance commitments from the others, in terms of the approach to setting performance levels. We consider that there is scope for companies to challenge themselves to improve their asset health performance, given the improvements we have seen in the sector's performance

since privatisation and that at PR14 many of the asset health performance commitments involved stable performance rather than improvements. We agree with the respondent who considered stretching asset health performance commitments should drive innovation in the sector.

We are aware that many of the common performance commitments have standardised definitions which are relatively new or not yet fully developed. This work on standardisation is of great benefit to customers and stakeholders, as it will lead to a much more consistent measurement of the issues that matter to them over time. However, in the short term, it means we need to consider how companies can set performance commitment levels for metrics that lack a continuous time series of historical data.

2.6.11 Setting performance commitment levels for metrics that lack a continuous times series of historical data

Following publication of the draft methodology proposals in July, we received shadow reported data on: leakage, supply interruptions, internal sewer flooding and external sewer flooding from the water companies at the end of August. The shadow data was in accordance with the new consistent reporting guidance on these metrics. After reviewing this data, and following a discussion with the industry (as well as reviewing the July consultation responses), we identified that we needed to consider ways of setting performance commitment levels for metrics that lack a continuous times series of historical data. To help the sector, we carried out an informal consultation in October with: the water companies, Water UK, the CCG chairs, CCWater, the Environment Agency, Natural Resources Wales and the DWI.

Respondents to the informal consultation almost unanimously supported our preferred approach: that companies should use the best information they have available at the time to propose performance commitments based on a percentage change. Two respondents supported our proposed approach, but suggested we should use an absolute change rather than a percentage change. Some respondents considered that we should prescribe an approach, some that we provide guidance and others that we should leave it up to companies to propose an approach.

For leakage, data which is compliant with the new consistent data reporting requirements will not be available until at least 2017-18; in some cases, until 2018-19 or 2019-20. We therefore asked the informal consultees the best way to calculate three-year averages for leakage. Respondents had diverse views on the five options we proposed and some suggested variations on our five approaches. Three of our proposed five approaches had the most support, which (in order of the strength of support) were:

Table 8 - Three approaches to setting baseline, performance commitments and reporting performance for performance commitments with new data that use three year averages

	Setting the three-year average baseline	Setting the three-year average performance commitment and reporting performance
1	Backcast data for 2017-18 and 2018-19, and forecast 2019-20, to calculate a three-year average baseline, against which changes can be measured.	Companies use three-year averages from Year 1 of the price control period onwards. In July 2021, companies report 2020-21 data and back-cast data for 2018-19 and 2019-20, to calculate the three-year average to make it as close to fully compliant with the reporting guidance as possible. The same process applies in July 2022. In July 2023, no back-casting is needed.
2	Use the best available data for 2017-18 and 2018-19, and forecast for 2019-20 (even if it is not fully compliant with the new reporting guidance) to calculate a three-year average baseline, against which changes can be measured.	Companies use three-year averages from Year 1 of the price control period onwards. We accept that the data used in the three-year averages is not fully compliant with the new reporting guidance for a number of companies until July 2023.
3	Companies use forecast 2019-20 data (i.e. one year only) as the baseline, against which changes will be measured.	We do not use three-year averages for leakage because fully compliant data will not be available for 2017-18 to 2019-20, for all companies. We use annual performance commitments instead. We allow for deadbands so that outperformance payments and underperformance penalties are more likely to apply to trends rather than annual variations in leakage.

On balance, there was most support from respondents for us to provide guidance over us prescribing an approach, or not providing any guidance. Therefore, we are providing guidance below.

Our decision on setting performance commitment levels for metrics that lack a continuous historical time series

- Companies should use the best information they have available to propose performance commitments based on a percentage change. For example, for leakage, a company might propose a performance commitment with a 15% reduction over time¹¹ (by 2024-25), compared to the base level. Companies could translate the percentage changes into absolute levels (for example, in megalitres per day for leakage) once reporting under the new definition had settled down. This approach had almost unanimous support in the responses to our informal consultation.
- Companies can use alternative approaches if they consider these are more appropriate for a particular metric, or for their particular circumstances.

¹¹ The performance commitment could be: 2019-20 (base year) = 0; 2020-21 = a 3% reduction compared with 2019-20; 2021-22 = a 6% reduction; 2022-23 = a 9% reduction; 2023-24 = a 12% reduction; and 2024-25 = a 15% reduction.

- Whichever approach a company uses, the performance commitment, reported performance and the associated incentive payments should relate to actual performance changes and not changes in methodology or data quality.

Our decision on how companies should calculate three-year averages for leakage and PCC

Data compliant with the new consistent data reporting requirements will not be available to enable three-year averages to be calculated in the first year of the price control¹². About one third of respondents preferred approaches not involving a three-year average, but around two thirds preferred a three-year average, which is in line with our preference in the draft methodology proposals.

We are concluding that option 1¹³ in the table above is used. This had slightly more support than option 2, including support from the Environment Agency and CCWater. Therefore, at PR19 when setting three-year averages, our guidance is that:

- companies should use backcast data for 2017-18 and 2018-19, and forecast data for 2019-20, to calculate a three-year average baseline, against which changes can be measured; and
- companies should use three-year averages from year 1 of the price control onwards, when reporting their performance. In July 2021 companies report 2020-21 data, and back-cast data for 2018-19 and 2019-20, to calculate the three-year average. This will make it as close to fully compliant with the new consistent reporting guidance as possible. The same process applies in July 2022. In July 2023, no back-casting is needed.

As a respondent pointed out, if the performance commitments are based on percentage reductions relative to the baseline, the performance commitment levels and reported performance can, and should, be updated for the data most consistent with the consistent reporting guidance. The company must use a consistent definition for both the performance commitment and reported performance. This will ensure that the performance commitment, reported performance and the associated ODI payments relate to actual performance changes and not to changes in methodology or data quality.

¹² For some cases data will be available in 2017-18 but in some cases it will not be available until 2018-19 and in a number of cases for 2019-20.

¹³ This option was called Option 3b in the informal consultation.

2.6.12 Common performance commitments where we expect companies to propose forecast upper quartile performance levels

We expect, for the following common performance commitments, that companies should propose their commitment levels to be at least the forecast upper quartile for each year of the price control:

- water supply interruptions;
- internal sewer flooding; and
- pollution incidents.

This is because these common performance commitments are supported by good quality comparative information and we see little reason why companies should not be achieving the same stretching level of performance for these metrics.

Following respondents' comments, we have removed water quality compliance (as measured by CRI) from the list of metrics above. This is because CRI is a measure of water quality compliance and the performance commitment level should be set at zero. In addition, we recognise that CRI is a new measure and intended to be a more demanding metric of water quality compliance than its predecessor. Companies can take this into account when proposing any penalty deadbands.

2.6.13 Setting stretching performance commitment levels for leakage

Reducing leakage continues to remain a top priority for customers and the UK and Welsh governments. Managing leakage is important for delivering a resilient network in the long-term and reducing the risk of the over abstraction of water resources. This will be important in managing future challenges, such as population increases and climate change. A Water UK report, [Water resources long-term planning framework \(2015-2065\)](#), identifies the need for more ambitious leakage reduction to respond to the increased risk of droughts. Reducing leakage can also have a positive behavioural shift in customers' attitudes towards reducing their own usage.

Historically, leakage targets and performance commitment levels were informed by the sustainable-economic level of leakage (SELL¹⁴), which in theory delivers the most benefit to customers. We are concerned that this approach has not driven sufficient efficiency improvements or innovation in leakage reduction. In 2012, we

¹⁴ SELL requires companies to repair leaks where the marginal cost of doing so is less than the marginal cost of not fixing the leak e.g. the marginal cost of leakage repairs is less than the marginal cost of developing new water resources to compensate for the water lost through leaks.

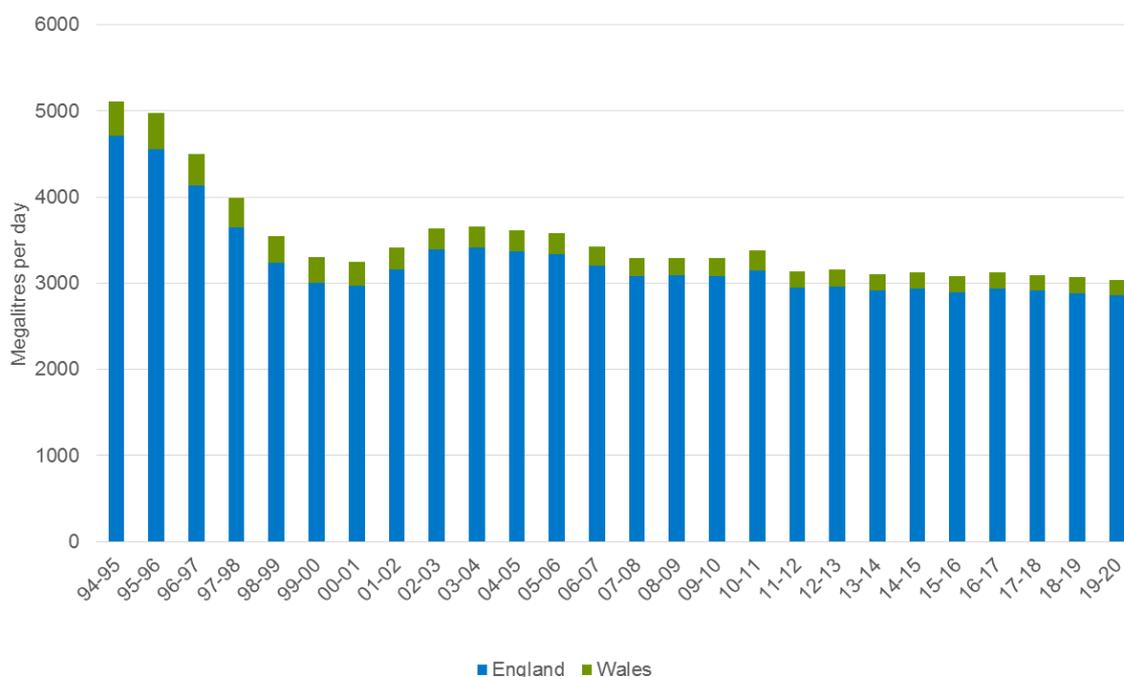
commissioned [Strategic Management Consultants](#) (SMC) to review SELL. They found that:

- **SELL tends to maintain the status quo.** This is the result of SELL being based on data that relates to the current knowledge of leakage components and leakage management costs.
- **SELL does not incentivise efficiency or innovation.** If companies' current active leakage control is inefficient, it will lead to a higher SELL and a less stretching target. This does not incentivise inefficient companies to become more efficient. It also does not drive innovation.
- **Companies are risk averse.** They found that due to companies' risk averse nature in relation to water resource planning, companies are reluctant to plan for lower levels of leakage for the long-term, resulting in inertia in relation to reducing leakage.

SELL, as an approach, allows for leakage to increase when new resources are built because the value of reducing leakage decreases as more water is available.

The industry reduced leakage considerably in the late 1990s. However, since 2000, leakage levels have declined at a much slower rate in Wales and have stabilised in England.

Figure 3 Total leakage in England and Wales, 1994-95 to 2019-20 in megalitres per day (projected performance for 2017-18 to 2019-20)



Our draft methodology proposals

We proposed that companies should justify their leakage performance commitment levels in relation to a number of challenges, for example, why a company cannot deliver a 15 per cent reduction or achieve upper quartile performance on leakage. We proposed that leakage performance commitments should reflect the results of companies’ customer engagement.

Stakeholder feedback

We received mixed responses towards our proposals. Many respondents agreed with the need to encourage ambitious reductions in leakage, but many others had concerns over our approach. Some respondents raised concerns about applying a blanket approach to leakage performance commitments that did not take into account companies’ resource positions and / or historical leading performance. Many respondents were concerned the 15 per cent reduction challenge was too stretching. In this context, some respondents wanted to know how cost allowances would be adjusted to account for the new policy challenges to improve leakage and to take account of previous expenditure.

Some respondents considered our approach was moving away from setting performance commitment levels informed by customer views. They considered that

companies should only set leakage performance commitment levels below the SELL, when this was supported by customers.

One respondent raised a concern about the specific version of the minimum level of leakage we had used. The respondent suggested that we use a UK-specific rather than an EU version of the Unavoidable Annual Real Losses (UARL).

Our decision on leakage performance commitment levels

We set out below our approach to companies setting performance commitment levels for leakage. We expect to see a renewed vigour in companies reducing leakage at PR19. Our approach encourages ambition, while retaining flexibility for companies to take into account customer views and their starting positions when proposing their leakage performance commitment levels.

The definition of leakage performance commitments

- We expect companies to report leakage levels on a consistent basis¹⁵ using a three-year average and using financial years. We explain above that because the data for leakage is based on a new definition, the leakage performance commitments should be set as percentage reduction compared with the baseline three-year average. We explain above how to calculate both the three-year average baseline and three-year average performance, given the expected status of the leakage data in the early part of 2020-25.
- We have supported companies working together, co-ordinated by Water UK, and working with UKWIR to agree a consistent definition of leakage. We are taking forward a joint project with Water UK, completing early in 2018, to further improve the consistency of the definition and reporting against it. The new definition of leakage is on our webpage. Companies have already started shadow reporting on this definition from 2016-17 onwards.
- We are requiring companies to provide information on their leakage levels, using their old definitions of leakage in table App2. This will allow us to understand the impact of moving to the new consistent metric when assessing companies' proposed performance commitments.
- Companies must justify why they have adopted a company-wide commitment level or sub-company regional commitment levels for leakage. We are not specifying whether leakage performance commitments should be set at a company-wide or a sub-company regional level. Companies will need to provide information in their business plan tables at the geographical level they

¹⁵ We are aware that some companies need to change how they collect performance data to align to the new leakage definition and that in some cases, it will take some time to obtain robust data. We expect companies to implement and report against the common definition, so it can be used in final determinations. We will take into account companies' progress in the initial assessment of plans.

are proposing performance commitments for. If a company adopts sub-company regional leakage performance commitments, they should together cover the whole of the company's area.

Time period for leakage performance commitment levels

Companies must provide a performance commitment for five years and projections for leakage levels for a minimum of 20 more years (see table App1). This is consistent with the time period used in the water resource management plans (WRMPs).

Stretching performance commitment levels for leakage

We expect companies to **propose stretching performance commitment levels for leakage** following engagement with their customers and challenge from their CCGs.

Companies should set stretching leakage performance commitment levels to:

- achieve forecast upper quartile performance (in relation to leakage per property, per day and leakage per kilometre of main per day) where this is not being achieved – or justify why this is not appropriate;
- achieve at least a 15% reduction in leakage (one percentage point more than the largest reduction commitment at PR14) – or justify why this is not appropriate; and
- achieve the largest actual percentage reduction achieved by the company since PR14 – or justify why this is not appropriate.

Companies should also justify their leakage performance commitments relative to the minimum level of leakage achievable, UARL, using either the EU definition or the UK-specific definition¹⁶. After considering the responses to our consultation we are also allowing companies to report the minimum level of leakage using a UK-specific version of Unavoidable Annual Real Losses (UARL). We understand that a number of companies are already using this for measuring their minimum level of leakage, therefore we have included it as an alternative to using the EU definition of UARL, which is a measure defined in the document [Good Practices on Leakage Management](#)¹⁷.

¹⁶ The UK specific UARL is calculated for a given system taking into account what is technically achievable. It is derived using the following equation: $UARL (m^3/year) = (6.57 \times Lm + 0.292 \times NC + 9.13 \times Lsp) \times Pc$. Where Lm = underground mains length (km), Nc = Number of Service Connections, Lsp = total length (km) of underground supply pipes and Pc = current average operating pressure (metres).

¹⁷ The EU UARL is calculated for a given system taking into account what is technically achievable. It is derived using the following equation: $UARL (m^3/year) = (6.57 \times Lm + 0.256 \times Nc + 9.13 \times Lt) \times Pc$

Companies can make the case for leakage reductions that do not achieve our challenges above where they can provide robust evidence and a strong rationale for this.

Companies' totex allowances should enable them to deliver their performance commitments, including for leakage. We consider that companies should be able to make efficiency savings in relation to leakage reduction in 2020-25, including through innovation. If companies consider they need customers to provide additional funding for their leakage performance commitments they need to provide robust evidence to support any special cost claim (as explained in our chapter and appendix on cost assessment).

Companies should consider how to innovate in reducing leakage. Companies could include an enhanced outperformance payment in their ODI to incentivise a major improvement in leakage performance, for example.

Factors companies should take into account when setting their leakage performance commitments

We expect companies to explain how their five-year performance commitment levels and long-term projections for leakage:

- take into account the views of their customers (with CCG assurance on how those views have been taken into account) and local stakeholders;
- relate to their water resources management plans (WRMPs);
- relate to their SELL, including the upper and lower limits;
- take into account the future value of water, water trading and resilience;
- take into account the additional benefit that reducing leakage can have, of encouraging customers to reduce their water usage; and
- take into account expected improvements and innovation in the efficiency of reducing leakage.

We acknowledge that some of these elements are difficult to estimate, especially over the long-term. Companies will need to explain what assumptions they have made, as well as the key uncertainties and sensitivities.

Companies should report the leakage performance in their water resource management plans (WRMPs) in their business plan (see table App2). Companies must explain any differences between the data in table App2 and the data in their WRMPs. Companies must report the SELL, and its range, to us (see table App 2).

Where: L_m = mains length (km); N_c = number of underground service connections; L_t = total length (km) of underground service connections (main to meter); P_c = current average operating pressure (metres).

SELL should be reported using both a company's old definition of leakage, as well as the new consistent definition of leakage. This allows us to understand the impact of moving to the new metric. The company should explain what factors it has taken into account, when calculating SELL.

2.6.14 Stretching performance commitment levels for per capita consumption

Water efficiency is a key priority for the English and the Welsh governments, as well as customers. In its [Water Strategy for Wales](#), the Welsh government considers that water consumption reductions by households and businesses are needed to ensure the long-term sustainability of water resources. The UK government has set out its expectations for ambitious reductions in per capita consumption (where this is best value in the long-run) in its [strategic policy statement in September 2017](#).

In the past, increased metering has driven reductions in water usage. While metering penetration is expected to reach around 60% by 2020, there are still some company areas with relatively low rates of metering. We also note the potential to adopt smart meters may unlock further water efficiency savings. In the future, it is likely that customers will be able to play an increasing role in managing water usage. This is in line with our [Customer engagement policy statement](#), which sets out expectations for companies to involve customers in service delivery through customer participation. Companies in England are also able to work with retailers in the business retail market to improve water efficiency.

Stakeholder feedback

Respondents' views varied on how companies should set performance commitments for PCC. Some respondents considered that commitments for PCC should take into account individual company circumstances. Other respondents considered that we should be more explicit in encouraging ambitious action to reduce PCC, including using challenges similar to those we had proposed for leakage.

Our approach

We expect companies to set stretching performance commitments for reducing PCC. We consider that the approaches we have set out above, for setting stretching performance commitments, should offer sufficient challenge to companies in relation to PCC, while taking into account company specific circumstances. When reviewing companies' proposals for PCC performance commitment levels we will pay particular attention to the level of ambition that companies have shown, including in relation to customer participation, and how they have reflected government policy and expectations in this area.

As explained above, we are proposing that companies should use a three-year average for PCC to smooth annual variations due to weather and to bring PCC into line with our approach for leakage. This is because leakage and PCC are both elements of the same water balance calculation.

3 Outcome delivery incentives

What issue are we seeking to address?

Outcome delivery incentives (ODIs) are the reputational and financial incentives that companies have to deliver on their performance commitments to customers. ODIs help to align the interests of investors and companies, with those of their customers, by incentivising them to improve services. ODIs can encourage dynamic effects, similar to a market, as companies strive to improve their service performance to earn outperformance payments. This then shifts the frontier of industry performance to the benefit of all customers.

We are building on the success of the ODI framework for PR19. In [November 2016](#) and [July 2017](#) we consulted on a number of ways to do this, including strengthening ODIs. This section provides detail on our approach to enhance the reputational and financial strength of ODIs. Our approach means there will be more incentive for companies to fulfil their service commitments to customers and more penalties for those that do not. Our package will:

- enhance the reputational impact of ODIs to strengthen the focus on service delivery, complementing financial incentives;
- strengthen financial incentives for efficient companies, where there is customer support for them;
- mean that companies (and customers) experience the incentive closer in time to when the service was delivered;
- allow for enhanced outperformance payments (and underperformance penalties) for companies that deliver a step-change in performance; and
- challenge companies to justify why incentives cannot be strengthened to increase incentives to improve service performance.

Change of terminology

Throughout the PR19 final methodology chapters and appendices, we have changed the term “reward” to “outperformance payment” and “penalty” to “underperformance penalty” or “underperformance payment”. These changes reflected concerns from some of our stakeholders, expressed since PR14, that the previous names did not convey that the payments relate to outperformance or underperformance, compared with the company’s performance commitments. In particular, the change addresses the concern that the word “reward” did not convey that the ODI payment reflected outperformance of a stretching performance commitment.

What options have we considered?

We considered three options in relation to improving ODIs in our draft methodology proposals. These aim to improve on PR14 by:

- using a wider evidence base on customer preferences;
- drive frontier-shifting performance; and
- increase the incentive on companies to deliver on their service commitments to customers.

Under all three options, we have assumed companies use a wider evidence base on customer preferences than at PR14. This is in keeping with our [Customer engagement policy statement for PR19](#).

Option 1: Base case - PR14+ approach

Option 1 is the PR14 approach but with a wider evidence base on customer preferences. Under option 1:

Companies would still be subject to an aggregate cap of $\pm 2\%$ of their Return on regulated equity (RoRE) on their ODIs;
there would be no enhanced ODI outperformance or underperformance payments; and
there would be no guidance on linking outperformance and underperformance payments to revenue, rather than the Regulatory Capital Value (RCV), the use of in-period ODIs and the use of financial versus reputational ODIs.

Option 2: Prescriptive approach

Under Option 2, we would continue to prescribe a RoRE range, albeit a wider one than at PR14. Additionally, we would set common ODIs for the common performance commitments, with enhanced outperformance and underperformance payments. We would set the balance between in and end-of-period ODIs, between RCV based and revenue based ODIs and between financial and non-financial ODIs.

Option 3: Guided approach

Under this option, we would set out our expectations and then ask companies to justify proposals which differ from them. We would remove the RoRE cap, but provide an indicative RoRE range of $\pm 1-3\%$ for companies' ODI outperformance and underperformance payments. We will expect all ODIs to be in-period, and linked to revenue rather than RCV by default. We would also put a greater onus on companies having financial ODIs, where there is a robust metric and customer support for this.

Our assessment of the options for improving ODIs

Table 9 below, sets out our assessment of the three options related to ODIs. We have not changed our overall assessment of the three options since July, although later in this appendix we explain where our approach has evolved following feedback through the consultation.

Table 9 Assessment of ODI proposals

	Option 1 PR14+ approach	Option 2 Prescriptive approach	Option 3 Guided approach Preferred option
Achieving our objectives	The PR14 framework will incentivise some incremental improvements, but does not incentivise frontier-shifting performance, which can benefit all customers. ✓	Mandating approaches severely restricts the ability of companies to take into account their customers' preferences. ✗	Setting expectations for more powerful ODIs will incentivise frontier-shifting performance. Requiring in-period and revenue based ODIs, as the default increases the incentive for companies to deliver for their customers. ✓✓
How our objectives are achieved	This approach is flexible and gives companies ownership. However, it does not promote innovation, or challenge companies to shift the frontier of service	Does not promote better regulation, as option 2 places a lot of restrictions on companies' ODI proposals. ✗✗	Promotes innovation and proportionate regulation as companies are able to tailor their ODIs to their customers' preferences, while companies' incentives are strengthened.

	Option 1 PR14+ approach	Option 2 Prescriptive approach	Option 3 Guided approach Preferred option
	performance sufficiently. ✓		✓✓
Practicality	Relatively easy to implement, as builds on PR14 approach. ✓✓	Difficult for us to implement as requires us to decide aspects of companies' ODIs, without customer engagement to inform our decisions May be more straightforward for companies to implement as involves less customer engagement. ✓	Developing appropriate guidance involves more effort from us and the companies. Companies have to respond to a number of challenges and engage with customers on them. ✓

We have concluded that Option 3 best aligns the interests of shareholders and management with those of customers for very little added implementation cost.

Removing the aggregate cap on ODIs and providing a wider indicative RoRE range, means companies are able to increase outperformance and underperformance payments, where this is supported by customer valuations and includes proposals to manage actual returns exceeding the expected RoRE range for ODIs to protect customers. In-period ODIs and the onus on financial ODIs in in option 3, should shift management and investor attention to managing the business to deliver great customer service. However, the key benefit of option 3 over option 2 is that it gives companies the discretion not to follow our expectations, where they can provide evidence of why this might not be in the interests of their customers.

Option 3 also allows companies to propose enhanced outperformance and underperformance ODI payments, which have the potential to incentivise companies

to deliver step changes in service delivery that will benefit customers across all companies.

3.1 Strengthening reputational ODIs

3.1.1 Background

We want to increase the reputational impact of all ODIs to increase the focus on, and scrutiny of, performance. The [PwC report for us on incentives](#) highlighted the important role reputational incentives can play in any package of incentives.

There is a strong reputational incentive for companies to achieve or outperform their performance commitment levels. This is because companies report their performance in their annual performance reports, which enable customers, CCGs and wider stakeholders to challenge companies on their performance. We consider that financial incentives can also enhance the reputational impact of ODIs. Our 2016 and 2017 [in-period ODI draft determinations](#) attracted media coverage and illustrated the power of financial ODIs to create reputational effects.

It is not just regulatory processes that impact on the reputation of ODIs. [Discover Water](#) enhances the reputational impact of ODIs by making information publicly available on companies' performance. Discover Water presents performance relative to a company's performance commitments and presents relative performance on standard metrics. Discover Water will develop over time, with input from all its contributors, including: companies, CCWater, regulators and government. We are strongly encouraging the next phase of development to take account of the reputational incentive of reporting on performance and comparative performance for driving improvements in the quality of service provided by companies.

3.1.2 Draft methodology proposals

In our draft methodology proposals we proposed to encourage or strengthen the reputational impact of ODIs (in addition to steps we are already taking ahead of PR19) in the following three areas: in the initial assessment of plans; through the use of contextual information and through the link to financial ODIs.

3.1.3 Stakeholder feedback

Most respondents agreed that the reputational impacts of ODIs are important and provide incentives for companies to engage with, and deliver for, their customers.

Some respondents supported the use of comparative tables and databases, such as Discover Water. Some noted that the use of in-period ODIs and common performance commitments would enhance the reputational impact by making performance more transparent to the media and customers.

3.1.4 Our decision on strengthening reputational ODIs

Our decision on strengthening reputational ODIs reflects the approach proposed for the draft methodology proposals, and is as follows:

- **Initial assessment of plans test** – we expect companies to propose how they will approach their reputational ODIs in their business plans. We will assess the quality and ambition of companies' reporting on ODIs, including how they plan to increase their effect on reputation, as part of the 'delivering outcomes for customers' tests for the initial assessment of plans.
- **Context** – companies should provide contextual information to increase the impact of their ODIs on reputation. For common performance commitments, we will work with Discover Water to look at including forecasts of upper quartile performance to show the stretch companies can achieve. For bespoke performance commitments, companies could provide information about past performance and/or stretching forecasts of performance.
- **Link to financial ODIs** – our approach to increasing the financial strength and timeliness of ODIs will increase stakeholders' and the media's focus on ODIs, increasing their impact on a company's reputation.

3.2 Linking a higher proportion of revenue to service performance

In July we consulted on complementary ways of linking a higher proportion of revenue to service performance to increase companies' financial incentive to deliver on their service commitments to customers.

3.2.1 A greater onus on having financial ODIs

Currently around 40% of all ODIs are reputational only. Increasing the proportion of financial ODIs can provide benefits to customers. Putting more of companies' revenue at risk through service performance better aligns the interests of investors and company management with those of customers. It also focuses management on improving service performance for customers.

Our analysis of the PR14 financial ODIs shows that the outperformance and underperformance payments are concentrated on a relatively small number of performance commitments. In particular, they are concentrated on the five performance commitments we applied upper quartile challenges to at PR14. While companies found these to be priorities for customers at PR14, there is a risk that concentrating a relatively high proportion of potential revenue from ODIs on these metrics causes companies to focus on them disproportionately. A higher proportion of performance commitments with financial ODIs might, therefore, help companies balance customers' wider service priorities, as well as increase the overall power of ODIs.

There are, however, potential drawbacks to increasing the proportion of financial ODIs. Companies might use them to diversify their performance risk across a large number of ODIs, so that failure on any individual metric would not have a large impact on revenue. In addition, having a large number of financial ODIs might dilute management focus on service performance altogether, because of the difficulty of concentrating on so many metrics at once. However, if customers value a wide range of service measures, it would still be appropriate for companies to be incentivised to deliver them.

Draft methodology proposals

In July 2017 we consulted on putting an onus on companies having financial ODIs for their performance commitment in order to strengthen the incentive on companies to deliver on their performance commitments to customers.

Stakeholder feedback

There were a few concerns with us putting an onus on companies having financial ODIs. One respondent noted that while placing an emphasis on financial ODIs is desirable, it is important to recognise the importance of non-financial ODIs, where these are appropriate. Two others remained unconvinced that stronger emphasis on financial ODIs would be enough to convince companies to deliver better outcomes. Others still recommended that the type, scale and timing of ODIs should remain a matter for companies and customers to decide, given different local contexts.

Our decision on financial ODIs

For PR19 we have decided that companies should justify, with supporting evidence, whenever a performance commitment is **not** supported by a financial ODI.

However, our onus on financial ODIs does not mean we will not be requiring companies to provide evidence that a financial incentive is appropriate and supported by customer engagement.

For an ODI outperformance payment to be appropriate, the company must at least:

- be proposing a stretching performance commitment level (as explained above) so that outperformance payments are for strong outperformance and not for carrying out the “day job”;
- demonstrate there are benefits from improved performance; and have customer support for its proposed outperformance payment.

Our approach allows for a company to propose a reputational-only ODI, if the company provides convincing evidence that this is appropriate. This includes evidence from its customer engagement or that a performance commitment is not well suited to a financial ODI.

3.2.2 Removing the aggregate RoRE cap on ODIs and an indicative range for ODIs.

At PR14 we applied an aggregate cap and collar on companies’ ODIs of $\pm 2\%$ of RoRE. We now consider that there is scope to learn from PR14 and further incentivise companies to innovate in the delivery of service performance (where supported by customers), while sharpening the incentives to avoid underperformance. We consider that this should be reflected in the range of returns for out or under-performance in 2020-25.

Draft methodology proposals

In July we consulted on removing the aggregate cap and collar on ODIs and providing an indicative range of ± 1 to $\pm 3\%$ of RoRE.

Stakeholder feedback.

In response to the consultation, there were mixed views on removing or increasing the size of the aggregate RoRE cap and collar. Some respondents expressed concern about the relative upside and downside impact on the ODI RoRE range if performance commitment levels were based on forecast upper quartile performance in 2024-25, from 2020-21 onwards. One respondent noted that removing the RoRE cap and collar places a lot of weight on Ofwat’s assessment of companies’ performance commitment levels. However, others noted that it is up to a company to balance risk and return in its business plan. Two respondents noted that we should consider how the outcomes framework would deal with adverse events, particularly weather-related events, prior to completely removing the caps. One respondent raised a concern over the potential impact on financeability, if in-period financial ODIs are not subject to a collar.

Our decision on removing the aggregate cap and collar on ODIs and an indicative range for ODIs

We are removing the aggregate cap and collar on ODIs and confirm an indicative range for ODIs of ± 1 to $\pm 3\%$ of RoRE¹⁸. This will enable companies to propose ODIs that better align customer, management and shareholder interests. Companies will be able to propose stronger ODI outperformance and underperformance payments (where they are supported by customer valuations) to incentivise them to deliver on their performance commitments to customers.

Companies' overall RoRE range will be built bottom-up, from individual customer valuations on individual ODIs. Removing the aggregate cap enables companies to meet our other challenges in relation to ODIs. This includes: adopting enhanced outperformance and underperformance payments, having a greater emphasis on financial ODIs and being able to use a wider range of customer information to set outperformance and underperformance payments.

We expect companies to propose approaches to protecting customers in case their ODI payments turn out to be much higher than their expected RoRE ranges for ODIs. These could involve companies' demonstrating their understanding of the 'tail' of the distribution of potential returns and proposing protections for customers from extreme outcomes, such as through the use of caps and collars on individual ODIs or other measures to manage actual returns exceeding the expected RoRE range. We set out further information on setting caps and collars for individual ODIs below.

As well as bottom-up valuations, companies will need to test the overall acceptability and affordability of their business plan proposals with customers.

We expect companies to base their RoRE range for ODIs on a high and low case, using the P10/P90 range of probabilities¹⁹. For more information see appendix 12 'aligning risk and return'.

How we have addressed the consultation responses

We consider that the concerns expressed about the relative upside and downside RoRE range for ODIs, should be alleviated, to some extent, by the modification to our draft methodology proposal on setting performance commitment level. We are now challenging companies to achieve the forecast upper quartile performance level for each year of the price control period, rather than applying 2024-25 upper quartile

¹⁸ Please note that companies can still propose caps and collars on individual ODIs as described below.

¹⁹ The P90 and P10 are points on a risk distribution. The P90 points means there is only a 10% chance that the outturn RoRE will be above the threshold provided.

performance from 2020-21 onwards. Our revised challenge will be an expectation for: supply interruptions, internal sewer flooding and pollution incidents.

In relation to adverse events, such as weather events, we want companies to be incentivised to minimise the impact on customers. These are precisely the events we want the sector to be resilient to. However, we explain below that companies can propose caps and collars on individual ODIs in certain circumstances including to protect customers in case their ODI payments turn out to be much higher than their expected RoRE ranges for ODIs.

In relation to concerns about financeability, to maintain the incentives on management, we will make reconciliation adjustments relating to incentive mechanisms after carrying out our financeability assessment. This ensures that customers do not pay more to address financeability constraints arising from poor performance. Similarly, it ensures that the value of financial outperformance payments for performance against regulatory incentive mechanisms is not eroded as a result of adjustments made following the financeability assessment.

3.3 The timing of ODIs

As set out in the outcomes chapter of the PR19 final methodology, our outcomes framework for PR19 includes two changes to bring the impact of ODI outperformance and underperformance payments closer in time to the service performance that generated them. The purpose of these changes is to sharpen the focus of company management on service delivery.

3.3.1 In-period ODIs

In-period ODIs (i.e. ODI payments that are paid between price reviews, rather than at price reviews) bring service performance payments closer in time to when customers received the service performance. In-period ODIs should also result in companies compensating their customers for poor performance more quickly.

In-period ODIs require companies to explain their performance to customers and how it impacts on their bills more frequently. This enhances the reputational impacts of ODIs.

At PR14, three companies proposed in-period ODIs. These companies agreed to change their licences to enable this to happen. For PR19, our aim is to strengthen the incentives for service delivery by all companies having in-period ODIs. To achieve this we consulted on, and subsequently made changes to, all company licence conditions.

Company licence changes

In November 2016 we consulted on changes to company licences that would enable in-period ODIs to operate for every company, from 1 April 2020 onwards. All companies subsequently agreed to this licence change and it was made in April 2017. Full details of the licence changes have been published on our website, but we summarise the main details below:

- We need to notify companies of the specific performance commitments that will be subject to in-period ODIs by the 31 December of the year, before the new price control starts;
- A company can ask us no later than 15 August in any year, to make a determination. We can also initiate a determination when a company has not requested one. We will determine any change to the level of price controls, no later than the following 15 November;
- Years 4 and 5 of the in-period ODI determination process will be implemented differently (assuming a 5-year price control period). Year 4 in-period ODIs will be dealt with as part of the next price review. Year 5 in-period ODIs will be determined in the year following the next price review. This is because Year 5 performance will not be known when we set the next price control; and
- We expect companies to propose approaches to smooth bills, where it is in customers' interests, as part of their application for an in-period ODI determination. Where appropriate, we will be able to smooth the bill impacts of the in-period ODI outperformance and underperformance payments.

Draft methodology proposals

In July we consulted on in-period ODIs being the default option for companies at PR19, including for all common performance commitments other than the resilience ones. We consulted on companies justifying their proposed balance of in-period and end-of-period ODIs and how they will manage bill volatility in their business plans.

Stakeholder feedback

Most respondents agreed with the benefits of bringing outperformance and underperformance payments closer in time to the performance that generated them.

A number of respondents noted that there might be cases where end-of-period ODIs are more appropriate than in-period ones (mostly due to natural variations in long-term performance) and suggested that it should be up to the company and its customers, which performance commitments should have in-period ODIs.

Some respondents were concerned that the increased application of in-period ODIs would lead to bill volatility and would complicate annual price setting.

Several respondents considered that in-period ODIs could drive short-term, sub-optimal behaviour and were concerned about how this could impact investment for the long term.

Some respondents raised concerns about an increased number of in-period ODIs potentially becoming an administrative and regulatory burden.

Our decision on in-period ODIs

Our decision on in-period ODIs for PR19 is the same as our approach in the draft methodology proposals, with some additional clarifications, reflecting the consultation responses. Our decision is, as follows:

- Companies should adopt in-period ODIs as a default for all their ODIs, unless they can justify why an in-period ODI is not appropriate against the criteria set out below;
- All the common performance commitments should have in-period ODIs attached to them, with the exception of the two resilience common performance commitments (because they are at relatively early stages of development);
- Companies will need to explain their overall balance between in-period and end-of-period ODIs in their business plans;
- Companies must set out how they propose to manage bill volatility over the period; and
- We will set out our process for assessing in-period ODIs for PR19 in an information notice, learning from the 2015-20 experience. We will make sure that this approach is proportionate and transparent.

How we have addressed the consultation responses

We have considered carefully the issue of bill volatility. There is a balance to be struck between linking incentives more closely in time to performance, and a smoother path of bill changes year on year, which customers tend to prefer. In some cases, it might be appropriate to apply the in-period ODIs over several years to smooth bills while still capturing some of the benefits of bringing forward incentive payments closer to the performance that generated them. As set out above, we expect company business plans to include how they propose to manage bill volatility over the price control period.

In relation to the administrative process for in-period ODIs, we recognise stakeholders' concerns. As set out above, we will make sure that our approach is proportionate and transparent, and informed by the learning from the 2015-20 experience of applying in-period ODIs.

Criteria for assessing when an in-period ODI might not be appropriate

Our policy for PR19 is that companies should adopt in-period ODIs for all their performance commitments as the default position, with the exception of the two resilience common performance commitments (as mentioned above). However, we recognise there might be instances where the use of in-period ODIs is not appropriate. Some examples of when an in-period ODI might not be appropriate are given below.

- **Customer impacts.** Companies would need to justify, with evidence, why in-period ODIs are not in customers' interests, including why future customers should pay/benefit from incentives related to the service performance affecting current customers. The evidence should include customer research and views of the CCG.
- **Limited benefit of annual incentives for performance.** A company would need to justify why annual incentives would not be appropriate to incentivise improved performance for customers. This might be because a performance commitment relates to a long-term objective with significant uncontrollable variation in annual performance. It may also occur in cases where annual incentives will limit a company's ability to innovate, or, might discourage a company from developing new and innovative ODIs.

For the common performance commitments, we will require particularly strong justifications and evidence for any cases where companies are proposing not to adopt in-period ODIs, with the exception of the resilience common performance commitments.

How we have addressed the consultation responses

Our approach above concurs with those respondents who noted that end-of-period ODIs may be more appropriate in some circumstances.

We do not think our approach to in-period ODIs will drive unwarranted short-term behaviour by water companies. As explained above, we will allow companies to justify why an in-period ODI might not be appropriate in certain cases, which includes when a company is aiming for a long-term objective with significant uncontrollable variation in annual performance. In addition, companies have to

provide performance commitments for five years and projections for at least ten years after that, which means they will need to put their commitments and associated ODIs in a long-term context. We have also clarified our expectations for companies in terms of long-term resilience planning through our seven resilience planning principles.

3.3.2 A greater proportion of ODIs linked to revenue, rather than RCV

As with in-period ODIs, linking end-of-period ODIs to revenue rather than the RCV brings outperformance and underperformance payments closer in time to the performance that generated them. It also strengthens the incentive for companies to fulfil their service commitments to customers. At the moment, 28% of ODIs are linked to the RCV rather than revenue. Adjustments to the RCV can take more than 20 years to have a full financial effect on a company. This means that the impact of current performance is felt far in the future, when the customer base will have changed considerably.

At present all in-period financial ODIs are linked to revenue and we expect this to continue for PR19.

Draft methodology proposals

In July 2017, we proposed that end-of-period ODIs should, by default, be linked to revenue, unless companies could justify, with evidence, why this should not be the case. We considered that adjustments to revenue were more appropriate than ODI penalties being applied through re-investment, as ODI penalties have a stronger impact on reputation, and increase the incentive for companies to deliver on their performance commitments to customers.

We noted in relation to ODIs linked to the RCV, that adjustments to the RCV can take more than 20 years to have their full financial effect on a company, which means that the impact of current performance is felt far in the future when the customer base will have changed considerably.

Stakeholder feedback

Most respondents supported end-of-period ODIs being linked to revenue, rather than the RCV. However, some respondents asked for there to be flexibility depending on the type of performance commitment. For example, an ODI linked to the RCV, might be appropriate for a performance commitment that delivers benefits to customers over a long period and for schemes which cover more than one price review period.

Our decision on linking ODIs to revenue

End-of-period ODIs, by default, should be linked to revenue unless companies can justify, with evidence, why this should not be the case.

We firmly consider that ODI penalties that reduce customer bills, through revenue reductions, are more appropriate than ODI penalties being re-invested, because they have a stronger reputational impact and reflect that customers have not received the service they have paid for.

How we have addressed the consultation responses

This decision is the same as our proposal in the draft methodology proposals. We agree with those respondents who considered that there might be some instances where linking an ODI to RCV is more appropriate. Our approach allows for this, provided such cases are well justified.

3.4 Enhanced outperformance and underperformance payments

We want to encourage companies to improve performance beyond the best level currently achieved by any company to deliver benefits for all customers over the long term. This is likely to involve innovation and risk-taking by companies as they seek to significantly improve their performance.

3.4.1 Draft methodology proposals

In July, we consulted on incentivising a step change in performance. We explained that calculating outperformance and underperformance payments based purely on customer valuations does not take into account the wider benefits that customers should obtain from shifts in performance that set a new benchmark for industry performance.

We encouraged companies to propose higher outperformance payments for very high levels of performance for their common performance commitments. We explained that we, and stakeholders, could use these new performance levels as benchmarks for future price controls to benefit the customers of all companies. The enhanced outperformance payment would compensate companies for the extra effort and risk involved in delivering a major improvement in performance.

3.4.2 Stakeholder feedback

Several respondents who supported the proposal considered that enhanced outperformance and underperformance payments should be available for bespoke, as well as common, performance commitments. Conversely, one respondent considered that they should be only used for truly comparable performance commitments.

A number of respondents raised a concern that enhanced outperformance and underperformance payments are biased towards a downside risk for companies. Some respondents noted that enhanced outperformance payments might encourage companies to focus selectively on a few performance areas or result in excessive risk-taking.

Several respondents commented that our proposed enhanced ODIs approach did not mimic the way in which companies are incentivised in a competitive market because:

- companies would not be able to benefit for changes that exceeded what customers want; and
- companies would not be required to share good practice.

In addition, several respondents were concerned that customers might not want to pay for wider industry benefits. Another requested that incentive rates continue to reflect the value customers place on changes in service levels.

Other respondents noted that the importance of ensuring that companies that receive enhanced outperformance payments are:

- going beyond statutory and licence obligations; and
- not delivering targets at cost of the environment.

3.4.3 Our decision on enhanced outperformance and underperformance payments

Our decision on enhanced outperformance and underperformance payments is:

- The enhanced outperformance and underperformance payments are only appropriate for the common performance commitments, which are based on comparable data. This is so that customers, CCGs and Ofwat can be more certain that the enhanced outperformance threshold truly represents frontier-shifting performance.

- The enhanced outperformance payment rate must be accompanied by an enhanced underperformance penalty rate for below-standard, poor and unacceptable performance. This is to provide balanced incentives and to protect customers, in case companies take unreasonable risks to achieve high performance and end up with very poor performance.
- The threshold for the enhanced outperformance payments should be set at the performance level of the current leading company, or preferably higher (for example, including a forecast improvement in addition to that performance level).
- Companies that are already the leading company (or close to its performance) will need to demonstrate stretch in the enhanced outperformance payment threshold levels they are proposing, given that we want to incentivise a step change in industry performance.
- Companies should justify how their enhanced outperformance payment threshold takes them towards hitting the maximum level possible for this metric, and how the threshold will improve benchmarks for all companies.
- The enhanced outperformance payment threshold is not dynamic, but set out in advance at PR19. The threshold could be set in advance to increase year by year. This is consistent with our approach for setting performance commitment levels and ensures there is sufficient incentive for companies to outperform current leading performance.
- Companies' enhanced outperformance payments will be cumulative after the threshold point. The first unit of outperformance will incur one unit of the enhanced outperformance payment. Subsequent units of outperformance will incur additional units of the enhanced outperformance payment. We will not allow companies to have one-off tranches of outperformance payment that become due at the threshold point.
- Companies proposing enhanced outperformance and underperformance payments should explain in their business plans how they will share the knowledge behind their success with companies across the sector by the end of the 2020-25 price review period or soon after. Receiving the enhanced outperformance payments will depend on whether the company has a credible plan for sharing its approach with the sector.
- We expect that enhanced underperformance penalties would apply at least at the current lower quartile company performance. A company that performs worse than the enhanced underperformance penalty threshold and incurs enhanced underperformance penalties will be required to submit an action plan to its CCGs, setting out the reasons for its poor performance and how it will improve its performance.
- The enhanced outperformance payment rate that applies beyond the threshold can include wider externalities that might not be captured in that company's customer valuations. One such externality is the benefit to

customers from the sector benchmarks of performance improving. Companies will therefore need to justify, using customer and economic evidence, why the enhanced outperformance payment rate they have chosen is appropriate and how its calibration benefits customers.

- The enhanced underperformance penalty rate should provide balance to the enhanced outperformance payment rate and be sufficient to protect customers in case companies take unreasonable risks to achieve high performance and end up with very poor performance.

3.4.4 How we have addressed the consultation responses

We do not think the enhanced outperformance and underperformance payments should be available for bespoke performance commitments because they are unlikely to be based on comparable data. As a result, customers, CCGs and we cannot be certain that the enhanced outperformance threshold truly represents frontier-shifting performance. Because not all companies have each bespoke performance commitment, even if the bespoke performance commitment is based on comparable data, we will have less information on which to judge what a stretching commitment looks like.

We do not consider that the enhanced outperformance and underperformance payments are biased towards a downside risk for companies. Our approach provides companies with guidance for, but does not prescribe, where the thresholds and the level of the enhanced incentive rates should be set. This enables companies to calibrate their enhanced outperformance and underperformance payments for their particular circumstances.

We proposed enhanced underperformance penalties to protect customers from the risk that the enhanced outperformance payments might encourage some companies to focus selectively on a few performance areas or take excessive risks.

We acknowledge respondents' concerns that customers might not want to pay for wider industry benefits through enhanced outperformance payments. Companies need to engage with their customers on their overall ODI packages. If a company did obtain support for enhanced outperformance payments, and achieved them, then its customers would be benefitting from a higher level of performance than other companies' customers. There are benefits to water customers as a whole, from companies being incentivised to shift the industry's service performance. If a number of companies achieved enhanced outperformance payments for different aspects of service, the costs and benefits will be shared across customers.

We consider that making the enhanced outperformance payments contingent on whether the company has a credible plan for sharing its approach with the sector,

and delivers on that plan by the end of the 2020-25 price control period or soon after, is a necessary corollary of allowing the enhanced outperformance payments to reflect wider benefits than those accruing directly to the companies' own customers.

3.5 ODIs for asset health performance commitments

At PR14 we had to intervene during the determination process for three companies because their proposed underperformance penalties, associated with not achieving their asset health performance commitments, were too low. In addition, because we allowed companies to adopt innovative, bespoke approaches to asset health, it was difficult for stakeholders to identify the scale of underperformance penalties associated with companies' asset health performance commitments. This is because those ODIs relating to asset health were not clearly identified.

3.5.1 Draft methodology proposals

In July we consulted on how companies should set their asset health underperformance penalties. We suggested companies could propose outperformance payments for asset health performance commitments if they can show there are benefits to customers and have customer support for improvements.

3.5.2 Stakeholder responses

Most respondents to the draft methodology proposals did not comment on asset health outperformance and underperformance payments. Two, however, noted that outperformance and underperformance payments, linked to customer engagement, should be available for asset health ODIs. Another asserted that if asset health performance commitments are leading indicators of other common performance commitments, their ODIs should be calibrated to avoid double payments.

3.5.3 Our decision on ODIs for asset health performance commitments

We confirm, our approach for PR19 is that companies should:

- set their asset health underperformance penalties using a wide variety of customer research;
- explain how their asset health ODIs relate to their past performance and the asset health challenges they face; and

- report their proposed asset health penalties as a percentage of RoRE so that they are comparable across companies.

Companies can propose outperformance payments for asset health performance commitments if they can show there are benefits to customers and have customer support for improvements.

3.5.4 How we have addressed the consultation responses

Our decision reflects the proposed approach for the draft methodology proposals and enables outperformance payments for asset health performance commitments if companies can show there are benefits to customers and have customer support for improvements.

We acknowledge that there may be some overlap between asset health performance commitments and the other common performance commitments. Companies should calibrate their ODIs for any overlap between the performance commitments, if they consider they would involve undue outperformance payments or underperformance penalties, should they outperform or underperform on related performance commitments.

3.6 Setting ODI outperformance and underperformance payment rates

At PR14 we prescribed an approach to how companies should set their ODI outperformance and underperformance payment rates.

To deliver this approach, companies needed to identify and understand their marginal costs, as well as customers' marginal willingness to pay (WTP). Companies carried out extensive customer engagement in order to understand their customers' priorities and the price they were willing to pay for service improvements, to meet their priorities. This was mainly done using stated preference willingness to pay analysis.

This bottom-up approach is grounded in economic theory, and therefore, should produce efficient outcomes. However, many companies told us they found it hard to find reliable values to use in the formulas. We also found that stated preference WTP values varied significantly across companies. This potentially limits the robustness of the approach.

3.6.1 External review of the approach to setting ODIs

In our [May 2016 Customer engagement policy statement for PR19](#) we recognised the limitations with stated preference WTP, and highlighted that we expect companies to build a robust, balanced and proportionate evidence base. We also stated that companies should be considering other valuation methods (such as, revealed preference WTP and behavioural economics) and consulted on this as part of the [November 2016 outcomes consultation](#). Most stakeholders agreed with this approach.

Between December 2016 and February 2017 we asked Frontier Economics to review the approach to setting performance commitments and ODIs. Frontier Economics' work supported using WTP and customer valuations as a key input when setting ODIs. They also identified other approaches, set out below.

Frontier Economics proposed that ODI underperformance penalties could be based on:

- the PR14 formula using WTP and, where appropriate, supplemented by other customer research;
- costs, marginal cost, or even the highest marginal costs of all the companies; and
- a top-down approach, with the total penalty being divided between performance commitments, based on customer preferences.

Frontier Economics suggested removing the WTP link from penalties and using marginal cost, as this increases robustness.

Frontier Economics proposed that ODI outperformance payments could be based on:

- the PR14 formula using WTP and, where appropriate, supplemented by other customer research; and
- A top-down approach, with the total outperformance payment being divided between performance commitments, based on customer preferences.

3.6.2 Draft methodology proposals

We consulted on a proposed approach for companies to set their ODI rates, as detailed further below in our decision (we explain where we have made any changes).

3.6.3 Stakeholder feedback

Few respondents commented on setting ODI outperformance and underperformance payment rates. Those who did respond stated that ODI rates should be based on customer preferences. Some respondents commented that the business plan tables we consulted on collected information on companies' marginal stated preference WTP and marginal cost, which did not reflect our policy that companies should also be using other customer valuations.

3.6.4 Our decision on setting ODI outperformance and underperformance payment rates

Our decisions for setting ODI outperformance payment and underperformance penalty rates, are as follows.

- Companies can base their ODI outperformance and underperformance payment rates on the existing formulas (see Box 2 below), but amended, so that companies can use alternative customer valuations instead of only marginal stated preference WTP.
- Companies can use other customer evidence to propose changes to the ODI outperformance and underperformance payment rates calculated according to the existing formulas, provided the changes are well justified.
- Companies should use forecast efficient marginal cost levels in their estimates of incremental cost in the underperformance penalty formula.
- Companies should not propose top-down, calculated outperformance and underperformance payment rates derived from a pre-set starting RoRE range or amount of revenue. Companies should use a bottom-up approach, which is based on customer evidence.
- Companies will need to ensure the bottom-up approach is in line with the expected RoRE range. If not, companies should provide information on why they believe the strength of their proposed ODI package is in line with their customers' views, and how it provides sufficient and appropriate incentive to deliver stretching service performance.
- CCGs will challenge companies on how well their proposed ODI outperformance and underperformance payment rates reflect a suitably wide range of evidence on their customers' preference.
- We will compare companies' marginal valuation amounts, marginal cost information, and outperformance and underperformance payment rates, for the same performance commitments at PR19. We will challenge companies on their proposed outperformance and underperformance payment rates, where appropriate.

- Companies should calibrate their financial ODIs with total expenditure (totex) efficiency sharing and any other incentives that might apply to their performance. Companies can calibrate their ODI rates for overlap between performance commitments if they can provide evidence this is appropriate.

Box 2 - Outperformance and underperformance payment formulas

$$\text{ODI}_{\text{underperformance}} = \text{Incremental benefit}^{20} - (\text{incremental cost} \times p)$$

$$\text{ODI}_{\text{outperformance}} = \text{Incremental benefit} \times (1-p)$$

Where:

- incremental benefit for underperformance penalties is the value foregone by customers for a given level of under-delivery. Incremental benefit for outperformance payments is the value that customers gain from a given level of over-delivery. The benefits can be measured by different customer valuation techniques.

Companies can also include other marginal benefits in the incremental benefits part of the formula, such as benefits to the environment, biodiversity and natural capital that are not captured in the other methods for customer valuations and which are appropriate to add to it.

- incremental cost for underperformance penalties is an estimate of the expenditure, which can be avoided by the company for the given level of under-delivery. Companies should use forecast efficient marginal cost levels in their estimates of incremental cost in the underperformance penalty formula.

p = is the customer share of expenditure performance (this is from the totex efficiency sharing incentive). Companies should use 50% for 'p', unless they can provide good reasons for using a different percentage.

Companies can use marginal or incremental values in these formulas as appropriate²¹.

²⁰ We have amended the formulas to replace "incremental WTP" with "incremental benefit" to take account of respondents' comments and to make the formulas consistent with our PR19 customer engagement policy statement, which states that companies should draw on a range of techniques and sources on customers' preferences.

²¹ Marginal refers to changes resulting from an additional unit of output. Incremental refers to changes resulting from a given change in output (which might be more than one unit).

Companies should provide information on the evidence they have used and their approach to setting ODI outperformance and underperformance payments, through the relevant business plan tables, the associated table commentaries and the sections of their business plans on ODIs.

The underperformance penalty formula is designed to compensate customers for the economic loss associated with the company's failure to deliver its relevant performance commitment. It compensates customers and society for the value they have lost (incremental benefits), less the reduced costs they will have to pay through totex efficiency sharing.

The outperformance payment formula is calibrated to provide companies with an outperformance payment no greater than customers' valuation for the improvement (their incremental benefits), less the additional costs customers have to pay for the improved performance (incremental cost multiplied by p). The outperformance payment rate formula is simpler than the underperformance penalty rate formula as we intentionally assume that the incremental cost is equal to the incremental benefit²². The outperformance payment rate formula means that customers cannot be worse off, and will be better off if a company can deliver its service improvements at a lower cost than customers' incremental benefit.

In most cases, companies should use 50% for the customer share of expenditure performance in the formula unless they can provide good reasons for using a different percentage. We consider 50% is an appropriate approximation because in many cases, companies' actual totex efficiency sharing rates will be close to 50%. Using 50% leads to simpler calculations and tends to result in incentive rates in round numbers, which are easier for stakeholders to understand. Using 50% avoids the problem that an ODI could span more than one price control (e.g. water network plus and wastewater network plus), which can have different totex efficiency sharing rates. In addition, the ODI formulas assume that higher levels of performance involve more expenditure and lower levels of performance involve less expenditure. Early evidence from the 2015-20 period suggests that service quality and cost outperformance are correlated, with both potentially arising from management outperformance. This suggests that precise calibration of the totex efficiency sharing rate is not required to protect customers.

The residential retail, business retail in Wales and bioresources price controls do not have cost sharing because they are based on average revenue controls. In these

²² The reason why we assume marginal cost (MC) = marginal benefit (MB) is that typically you would expect beyond the performance commitment for marginal cost > marginal benefit. Assuming MC = MB means that the outperformance payment rate is higher than it otherwise would be, but it allows for the fact that in reality a company is only likely to outperform its performance commitment if it reduces its marginal cost in which case the original formula provides too low an outperformance payment. As we cannot predict what future marginal cost might be we assume MC = MB which allows for future cost improvements but ensures customer are always better off.

cases, companies might want to set $p=0\%$, as the customers bear no share of cost overspending.

Any adjustments, such as if companies have had to adapt the results of the formula for wider forms of customer valuation, should be clearly explained, grounded in customer evidence and quantified transparently in business plans.

We have covered the approach to setting enhanced outperformance and underperformance payment rates in the section on enhanced ODIs, above.

3.6.5 How we have addressed the consultation responses

Our decision on ODI incentive rates requires these to be based on customer preferences.

Following comments from respondents we have amended the business plan tables to make it clear that companies can use alternative approaches to estimating marginal benefits, instead of implying they should be based on marginal stated preference WTP.

3.7 Other ODI design issues

In this section, we provide guidance on some other ODI design issues.

3.7.1 Shifting expenditure from totex into ODIs

We thought it would be useful to set out our views on shifting expenditure from totex into ODIs. This approach was used once at PR14. A company could design its performance commitment and ODIs to shift expenditure from totex into ODI outperformance payments.

We use an example of a company proposing to set a performance commitment of reducing its number of sewer flooding incidents to illustrate the difference between including the cost in totex (the standard approach) versus designing an ODI to fund the expenditure (the alternative). The efficient level of performance would be a 25% reduction in sewer flooding.

The standard approach to performance commitments would be to set the stretching performance commitment level at a 25% reduction and earn any outperformance payments for any reductions, greater than 25%.

An alternative approach to fund the expenditure by an ODI would be to set a performance commitment of a 0% reduction in sewer flooding and transfer the expenditure needed to achieve the 25% reduction into outperformance payments. An argument used in favour of this alternative approach is that customers only pay for the 25% reduction as and when it happens.

For PR19, we strongly discourage the alternative approach to setting performance commitments for the following reasons. First, under the standard approach the costs of the service improvement go into totex and are subject to our cost challenges - the alternative approach bypasses totex and the cost challenges. Second, the alternative approach involves companies being much less transparent with customers about the efficient level of the performance commitment, which in the example above is a 25% reduction in sewer flooding, not no change. Third, under the alternative approach, if the company is not achieving the 25% reduction, it will earn outperformance payments, provided it is reducing sewer flooding incidents by some amount, which may mislead customers about its performance.

3.7.2 Deadbands

Deadbands are zones of performance close to the performance commitment level, for which no financial ODI applies, even though the performance commitment has a financial ODI. At PR14, companies proposed deadbands to protect companies and customers from small variances in performance that might result in an outperformance or underperformance payment. This means that fluctuations that may be the result of events outside of management control are not financially rewarded or penalised.

Stakeholder feedback

There were mixed views on the continued use of deadbands in response to the draft methodology proposals. Some respondents felt these offered protection to customers from small variations in performance, due to the weather, for example. Some suggested deadbands would provide a fairer balance of risk. Another noted that flexible commitments that adjust for exogenous factors may be a good alternative if deadbands are discouraged.

Our approach to deadbands at PR19

For PR19 we are discouraging companies from proposing deadbands because they remove the incentive for companies to improve their performance. They also require judgement to set and setting the level may be difficult and reduce transparency to customers. Customers experience the down and upside of the fluctuations in terms of their service, so it seems reasonable that the appropriate adjustments are made to

bills. Companies are able to manage the financial consequences of ODIs as part of considering the impact of ODIs in the round in their applications for their in-period ODI determinations.

Companies that wish to propose deadbands will need to provide strong evidence as to why their proposals are appropriate and in the interests of their customers. We provide the example of CRI above where there is a rationale for proposing a deadband.

We do not consider that flexible performance commitments that adjust for exogenous factors are a good alternative to deadbands as these will be harder for stakeholders to understand and engage on. They would also involve complex rules regarding the factors on which the commitments can be adjusted and by how much.

3.7.3 Caps and collars on individual ODIs

As already set out above, our package will include the removal of the overall RoRE cap on ODIs alongside protection for customers against the potential for very high outperformance payments that exceed expectations. Companies can propose outperformance payment caps and underperformance penalty collars on individual ODIs. In doing so, companies will need to consider the costs and benefits of such caps and collars.

The main cost is that these individual caps and collars reduce the incentives for companies to improve their performance near, at and beyond the cap and collar.

There are benefits of such caps and collars. These include:

- avoiding the exposure of companies and customers to unlimited, or very high, outperformance and underperformance payments on individual ODIs; and
- allowing companies to have higher ODI rates, focused over a smaller performance range.

Stakeholder feedback

Two respondents noted that removing individual caps and collars on ODIs would alter the risk profile of incentives, particularly where there is a risk of extreme events. These respondents suggested it would be particularly beneficial for individual caps and collars to be included when proposing enhanced outperformance payments. One other noted the importance of maintaining caps and collars to prevent unexpected bill increases and potentially unlimited outperformance payments.

Our approach to caps and collars on individual ODIs at PR19

Companies can propose outperformance payment caps and underperformance penalty collars on individual ODIs, if supported by their customer engagement. In doing so, companies will need to consider the costs and benefits of such caps and collars.

We consider that individual caps and collars are likely to be more appropriate where data quality is lower, or there is less comparative or historical information on performance (so it is hard to know that the performance commitment level is stretching) or where P10 / P90 performance levels are difficult to estimate or evidence on customer benefit is less robust and therefore ODI rates are less well supported.

We will consider capping, including down to zero, the ODI outperformance payments on bespoke performance commitments for a company categorised as being under significant scrutiny in the initial assessment of business plans. This is because for bespoke performance commitments data quality will depend on information provided in the significant scrutiny company's business plan, in which we are likely to have identified significant issues. We will also consider capping the ODI outperformance payments for the common performance commitments for a company categorised as being under significant scrutiny. However, a cap is less likely to be appropriate for these ODIs, given our ability to test the degree of stretch in the performance commitment levels across companies' plans.

3.7.4 Gated ODIs

We have considered whether there is a case for "gated ODIs", where earning an outperformance payment on one ODI depends on the performance on another ODI. A benefit of gated ODIs is that they avoid a situation in which a company performs very poorly on one or more performance commitments, but still earns outperformance payments for good performance on other commitments. However, gated ODIs can reduce or distort the incentive for companies to improve their performance, to the detriment of their customers. For example, if a company was performing poorly on sewer flooding, it might not lead to the best outcome for customers to then remove the company's incentive to improve its performance on leakage or supply interruptions.

Stakeholder feedback

One company noted that there was no need to remove the option for gated ODIs altogether.

Our approach to gated ODIs at PR19

We are discouraging the use of gated ODIs. However, we consider companies need to take a responsible attitude to claiming ODI outperformance payments when they have performed poorly in some areas. Some companies have already chosen not to take their full ODI outperformance payments for this reason.

We recognise that C-MeX includes a gate to access the higher tier of high performance payments. This followed extensive engagement on whether we should retain a financial incentive on complaints. We explain our rationale for the gate in C-MeX, in appendix 3.

3.7.5 Inflation and the time value of money

In July we did not consult on the application of inflation and the time value of money to ODIs, but we did consult on these ahead of publishing the [Reconciliation Rulebook for PR14 in July 2015](#). We have also developed our policy through the application of in-period ODIs in 2016 and issued an updated [Information Notice on in-period ODIs in June 2017](#).

Inflation

ODIs should be adjusted for inflation, using November-to-November lagged CPIH as the index. This reflects our current approach to inflation uprating of ODIs that we consulted on in 2015 and our approach to moving from RPI to CPIH that we consulted on through our Water 2020 consultations.

Time value of money

ODIs should not be adjusted for the time value of money, if they are applied in the year they are intended to be applied. For in-period ODIs, the ODIs are intended to be applied two years after the year in which the performance occurred. For end-of-period ODIs, the ODIs are intended to be applied at the following price review. This reflects our current approach to applying the time value of money to ODIs that we consulted on in 2015.

However, after applying in-period ODIs, following consultation on the draft determinations, we concluded in 2016 that where an ODI is not being applied in the year that was intended, for example due to bill smoothing, the weighted average cost of capital, set out in companies' final determinations, should also be added to the ODI payment. This is to ensure that companies cannot reduce the effective size of their underperformance penalties by delaying their application.

3.7.6 Common ODIs

We are not requiring companies to have common ODIs i.e. the same ODI rates across companies for the common performance commitments at PR19.

Common ODIs could be used on common performance commitments. This would be to ensure companies and customers face the same outperformance and underperformance payments for the same performance levels. However, common ODIs do not allow for companies to take account of local customer preferences.

For PR19 we are not having common ODIs for the common performance commitments so that companies can set their ODIs based on their customer engagement. However, if companies' proposed ODIs for the common performance commitments are not supported by good evidence we will consider intervening to protect customers' interests. We will do this by ensuring that the ODIs have a robust basis and that customers are not exposed to risk from inappropriate incentives. As mentioned above we will compare companies' ODI rates for the same performance commitments at PR19 and will challenge companies on their ODI rates, where appropriate.

There were no comments on our approach to common ODIs in response to the draft methodology proposals.

3.7.7 Trigger ODIs

We are discouraging trigger ODIs at PR19. "Trigger ODIs" are designed so that when a company's performance goes over a certain threshold, a lump sum outperformance or underperformance payment becomes applicable. Currently, most ODIs are "cumulative" (i.e. for each unit of performance beyond a threshold, the ODI payment increases). The difficulty with trigger ODIs is that they generate very strong incentives at the threshold point (which might be too strong), but no incentive beyond the threshold. Incentives that are too strong or too weak could drive inefficient behaviour by companies to the detriment of customers.

There were no comments on our approach to trigger ODIs in response to the draft methodology proposals.