

United Utilities Water Limited
Developing Performance Measures and
Incentives
August 2016

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Executive Summary

The focus on outcomes at PR14 - with associated Performance Commitments (PCs) and Outcome Delivery Incentives (ODIs) - has generally been successful in encouraging focus on delivering the right service to customers. However, there is scope to make improvements, learning lessons from PR14.

A key issue is the use of common measures and the setting of targets based on comparative assessment. As noted by Ofwat, “One of the major benefits of outcomes is that they can be adapted to reflect local, regional and where appropriate national differences in customer views, circumstances and policy”¹. Setting measures and targets nationally cuts across this.

We recognise, however, that:

- There are benefits from collection of information on a common basis so that an overview of industry performance is available and comparisons can be made of performance.
- For some aspects of service, there is a case for all companies using the same measure of performance. This is particularly the case where there is a statutory basis for targets, such as water quality compliance.

Therefore, as recognised in Ofwat’s May publication, there is a balance to be struck between common performance measures and local measures reflecting local customers’ requirements. Where common performance measures are used then it is important that all companies are using the same definitions and implementing the same approach to measurement. This is not currently the case for at least some of the measures for which information is being collected from companies. Further work is needed on this and we propose that this be carried out through a UK Water Industry Research project.

At PR14 Ofwat used comparative assessment to set upper quartile targets for some performance commitments, and it is considering using such an approach again at PR19 for some common performance measures.

We have evaluated this approach, and the alternative of targets being set using local engagement, against Ofwat’s Water 2020 objectives, as shown below.

¹ Water 2020: our regulatory approach for water and wastewater services in England and Wales, Ofwat, May 2016

Objective	Comparative assessment	Local engagement
Encourage service providers to focus on their customers over the longer term, rather than focusing their effort around periodic price reviews.	X	✓
Build on the customer-focused approach to PR14 and promote and maintain genuine customer engagement that drives companies' businesses.	X	✓
Encourage service providers to discover new ways of delivering outcomes to customers, which reduce cost and improve service.	✓✓	✓
Encourage service providers to discover and reveal the efficient cost of providing services.	?	?
Align the interests of investors, management and customers.	X	✓
Maintain customer confidence.	✓?	X
Maintain investor confidence	X	✓

The principal issues with setting targets based only on local engagement are whether it would provide sufficient incentives for poorly-performing companies to improve, and whether customer confidence would be maintained. However, an approach based on comparative assessment:

- Cuts across local engagement to determine what customers want.
- Could lead to a level of service which customers do not wish to pay for.
- Will cause investors to be concerned that an efficient company will be unable to earn an adequate return. (Investors welcome comparative competition but will be concerned that national targets will do not reflect local circumstances).

The CMA noted in its Bristol price limits enquiry that upper quartile performance was generally unlikely to match economic levels. However, the case for comparative assessment is that it is needed to protect customers, ensure that any outperformance is rewarded only when it is genuinely stretching, and to ensure fairness across companies.

We have evaluated a number of options, with the objective of finding an approach which more closely meets Ofwat objectives:

- Basing upper quartile performance on a basket of measures.
- Reducing the number of measures where comparative assessment is applied.

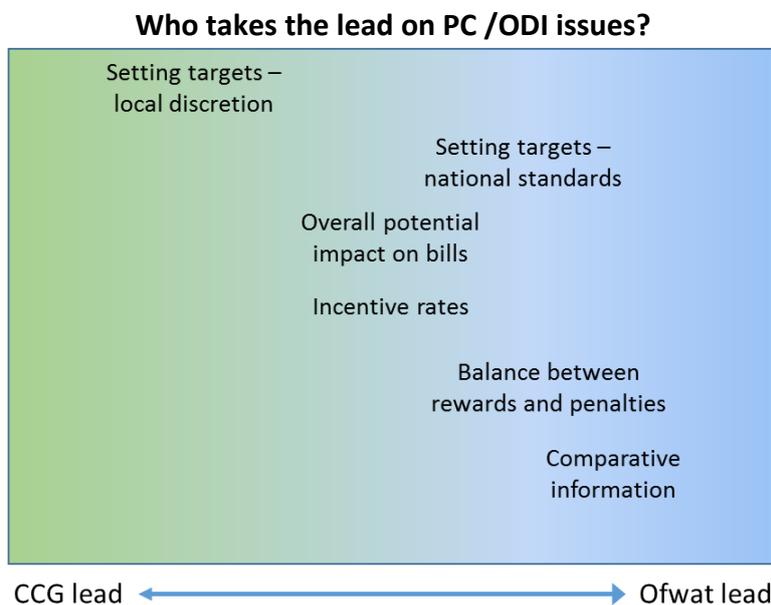
- Introducing a dead band, rather than penalties, in the range from median to upper quartile performance.
- Making an assessment of optimum service levels, balancing benefits, as measured by customer priorities and willingness to pay, against the cost of making improvements.

Our preferred option is a combination of:

- Continuation of the comparative assessment approach for measures subject to statutory standards – water quality compliance and pollution incidents.
- Introduction of an economic assessment, comparing costs with the benefits to customers and the environment, for other measures.

We consider that such an approach would encourage increased focus on customers, encourage efficiency and align the interests of investors and customers. It would therefore meet Ofwat objectives.

There is a need for greater clarity of CCG and Ofwat roles. We have set out what we think the relative responsibilities of Ofwat and CCGs should be in the process.



We have also addressed a number of other issues relating to outcomes and incentives for PR19 on which Ofwat will be consulting:

- **Long-term ODIs:** We agree that there are benefits from increasing focus on long-term goals. However, in view of the difficulties in setting long-term ODIs, we support Ofwat’s decision that it will consider proposals by companies for long-term commitments but will not require them. We also support Ofwat’s proposal that companies should provide long-term aspirations for all their PCs at PR19, based on customer and stakeholder engagement.

- **Asset health measures:** The variation in company circumstances is not sufficient to justify the extent of variability in ODIs at PR14. Therefore we support some move towards harmonisation, without requiring fully standardised measures.
- **The Service Incentive Mechanism:** the future of SIM is affected by the UK Government decision on whether to introduce competition into the household retail market. There is, however, likely to be some form of continuing incentive mechanism for some aspects of customer service delivery. SIM has delivered significant improvements but with differences narrowing between companies, these differences are now much more likely to be due to local circumstances than to real variations in company performance. There needs to be research to establish the value to customers of differences in service, and a switch to basing rewards and penalties on absolute differences in scores, so that if the difference between companies is small then rewards and penalties would be small. We believe that sample sizes should be increased to increase the statistical validity of SIM measures, and that this change in sample sizes should be made in the current period. Further work to update and improve the approach to the survey should, however, await the decision on introduction of competition.
- **The structure of incentives:** The approach should be simpler and less mechanistic, with some constraints to ensure that ODIs benefit customers, rather than mechanistic formula. There should be a presumption in favour of symmetry between rewards and penalties. There should be a balance between a “top down” approach and “bottom up” approach:
 - The overall level of rewards and penalties should ensure that there are sufficient overall incentives to deliver a high standard of service and innovate to deliver improvements.
 - The relative rewards and penalties for different aspects of service delivery should reflect customer priorities and values.

1 Introduction

The focus on outcomes at PR14 - with associated Performance Commitments (PCs) and Outcome Delivery Incentives (ODIs) - has generally been successful in encouraging focus on delivering the right service to customers. However, there is scope to make improvements, learning lessons from PR14. Ofwat is intending to consult on the issues in its November 2016 consultation on outcomes and a consultation in July 2017 on PR19 methodology. This paper is intended to contribute to this debate.

Our paper sets out our views on a number of issues relating to PCs and ODIs:

- The role of comparative information in setting PCs and ODIs, including:
 - Whether performance measures should be company-specific or common.
 - The extent to which targets and incentive rates should be based on national comparisons rather than local engagement.
- The scope for use of long-term incentives.
- The further development of asset health incentives.
- The development of the Service Incentive Mechanism (SIM).
- The structure of incentives, including the overall potential impact on bills and the balance between rewards and penalties.

Before considering the potential framework, the following section sets out objectives against which options can be evaluated.

2 Objectives for PCs and ODIs

The approach to setting the PC / ODI framework needs to ensure that companies are encouraged to:

- Deliver the service which customers want over the long-term.
- Increase efficiency, including promoting innovation.

Ofwat's July 2015 Water 2020 paper² set out six key questions that needed to be addressed by economic regulation. We agree that these questions need to be addressed, and they are appropriate to consider in evaluating the PC / ODI framework:

- How do we regulate to encourage service providers to focus on their customers over the longer term, rather than focusing their effort around periodic price reviews?

²<http://www.ofwat.gov.uk/consultation/towards-water-2020-meeting-the-challenges-for-water-and-wastewater-services-in-england-and-wales/>

- How do we build on the customer-focused approach to the 2014 price review (PR14) and promote and maintain genuine customer engagement that drives companies' businesses?
- How do we regulate to encourage service providers to discover new ways of delivering outcomes to customers, which reduce cost and improve service?
- How do we encourage service providers to discover and reveal the efficient cost of providing services?
- How can we best align the interests of investors, management and customers?
- How can we maintain investor and customer confidence through the transition to any new arrangements?

A key issue is how using common measures and targets can contribute to these objectives. This is addressed in the following section.

3 Common measures and targets

At PR14, companies were free to develop their own proposals for performance measures, commitments and incentives to reflect what matters to local customers. As noted by Ofwat, "One of the major benefits of outcomes is that they can be adapted to reflect local, regional and where appropriate national differences in customer views, circumstances and policy". Therefore, as recognised in Ofwat's May 2016 Water 2020 publication³, there is a balance to be struck between common performance measures and local measures reflecting local customers' requirements. However, in its determinations of price limits Ofwat introduced comparative assessments and targets and adjusted performance commitments with the objective of making them comparable. It would be very desirable to establish at an earlier stage to what extent there will be a) common measurement and b) common targets so that local engagement can be aligned with this.

There are three potential purposes of having common information:

- To enable stakeholders and companies to understand relative performance and to produce a national picture of how the industry is performing over time.
- To enable common performance commitments to be set.
- To enable common targets and associated Outcome Delivery Incentives to be set.

Each of these purposes is discussed below.

³ <http://www.ofwat.gov.uk/consultation/water-2020-regulatory-approach-water-wastewater-services-england-wales-discussion-questions/>

3.1 Common information

Companies, regulators, customers and other stakeholders all want to be able to compare performance in order to understand whether a company is performing well and the potential scope for improvement. Comparative information on performance has been a significant stimulus to improvement, even where not linked to financial incentives.

It is also important that, for the most significant aspects of service, there is information about the performance of the industry as a whole, to provide a strategic overview of the sector. This is not possible unless there is some common information on performance.

Therefore there is a clear need for some standard measures of performance. Where common performance measures are used then it is important that all companies are using the same definitions and implementing the same approach to measurement. Recent work by the industry suggests that this is not currently the case, at least for some of the measures on which companies report. For example, for sewer flooding companies are not all applying the same definitions and, even if the definition is the same, approaches differ as to what is counted as a sewer flooding incident. The table below shows some of the types of flooding where companies have different approaches as to what is included.

Flooding incidents – variations in methodology

Incidents related to severe weather, and the definition of severe weather
Minor incidents and damp patches
Flooding due to sewer jetting
Flooding of uninhabited cellars
Flooding where there is no evidence other than a statement from the customer
Restricted toilet use
Flooding caused by assets beyond a company's control
Flooding in developments not compliant with building regulations
Repeat flooding, i.e. counting incidents or properties

Further work is needed to ensure that there is a common approach to measurement, which could potentially be carried out through an UKWIR project.

3.2 Common performance commitments

The table below shows the advantages of using common performance measures and of using local measures. As recognised in Ofwat's May publication, there is a balance to be struck between common performance measures and local measures reflecting local customers' requirements. We agree that not all the information used to compare performance should be linked to common performance measures (i.e. with all companies committing in their business plans to targets for these measures).

Common performance measures	Local measures
Enables customers and stakeholders to know a company's comparative performance when they are consulted on appropriate targets.	Can reflect local differences in customer views and company characteristics.
	Encourages focus on customers rather than the regulator.
Creates pressure for improvement through comparative competition.	Enables a company to maintain consistency with PR14 measures, rather than switching to a standard measure.

The strongest case for a common measure being used for targeting purposes is where there are national standards, as for water quality compliance and pollution incidents. For other measures, if a company can demonstrate that local engagement has strongly supported use of an alternative measure then an alternative should be acceptable. For example, the standard performance measure for water supply interruptions is currently the number of minutes interrupted per customer. If, however, local customer research demonstrates that unplanned interruptions are significantly more disruptive to customers than planned interruptions, it would be reasonable for a company to have separate measures or to focus on unplanned interruptions for its performance commitment. Comparative information would still need to be available for the standard measure.

If there is to be comparative assessment with targets being centrally set, then it is essential that there are common performance commitments. At PR14, where there was comparative assessment Ofwat made some adjustments where measures differed, but this was not wholly satisfactory in view of the difficulties of making such adjustments. The issue of comparative assessment is considered in the following section.

3.3 Comparative assessment

At PR14 Ofwat set standard targets for companies' performance commitments based on a comparison of companies' performance (supply interruptions, water quality compliance, water quality contacts, pollution incidents and internal sewer flooding). The targets were set at upper quartile performance, with a two-year glidepath to achieve these targets. Ofwat is considering adopting this approach - or tighter targets - at PR19. Therefore the case for and against such an approach needs to be considered.

The case for targets based on comparative assessment

Ofwat considered that targets based on comparative assessment were needed to protect customers and to ensure that any outperformance is rewarded only when it is genuinely stretching. This reflected concerns Ofwat had about whether customers had been aware of other companies' performance when they were engaged on the level of performance

commitments. Ofwat has argued that this ensures fairness across companies, so that companies incur penalties and earn rewards for comparable levels of performance. Other stakeholders had also raised concerns about fairness across companies.

These arguments are considered in the table below:

Reason for intervention	Discussion of issues
To protect customers	<p>If companies are failing to deliver good performance through inefficiency, then setting tougher targets is appropriate.</p> <p>If, however, the current level of service reflects local priorities or the relative costs in the local area of making improvements, then tougher targets are not justified.</p>
To ensure that targets are genuinely stretching	<p>This issue needs to be considered in the context of the overall risk-reward balance.</p> <p>If the other components of price-setting enable a company to achieve its cost of capital, then overall ODIs should deliver an equal balance between rewards and penalties. An upper quartile target is probably too high to achieve this.</p> <p>Ofwat raised in its July 2015 Water 2020 consultation the possibility that base returns could be lower but with companies able to earn greater returns from performance (both ODIs and totex). This would not be compatible with setting upper quartile performance targets.</p>
To ensure fairness between companies	<p>If companies should have the same costs and practical challenges to deliver good performance, then it could be unreasonable for a poor-performing company to earn rewards. If, however, costs or practical challenges vary between companies then earning rewards could be reasonable even if current performance is relatively poor.</p>

A key issue above is whether relatively poor performance reflects relative efficiency or local circumstances. Ideally, an assessment would be made of efficiency taking into account costs and service performance – combined totex and service assessment.

In practice the limitations of modelling efficiency make this unlikely to be fully achievable. Nevertheless, although a full statistical assessment is unlikely, adjustments should be made where possible. A potential approach is that, if there are any targets to be based on comparative assessment, these are declared in advance and companies could have the

opportunity to include these costs in their plan. Business plan costs could then be compared with the costs of achieving the targets included.

It could also be possible to make some overall judgement about a company's performance. For example, it may be more questionable whether a company should be regarded as efficient in terms of totex if its overall service performance is poor.

The case against targets based on comparative assessment

The principal arguments against setting standard targets are that:

- It cuts across local engagement to determine what customers want. The UKWIR report on PR14 research and engagement⁴ noted that Ofwat's intervention was "at some cost to the credibility of the process established to determine customer priorities locally". Although comparative assessment was only applied to five measures these are aspects of service which involve significant expenditure to deliver improvements. Therefore changing targets for these measures has a considerable impact on prioritisation.
- It could lead to a level of service which customers do not wish to pay for.

In principle, an economic level of service can be determined for any aspect of service. This would weigh the additional benefit to customers and the environment from an improvement, as measured by customer research, against the additional cost of making that improvement. The economic level is reached when the cost of any further improvement would be greater than the benefits. This is the approach which is used for setting the sustainable economic level of leakage.

In setting upper quartile targets Ofwat argued that their targets would be closer to the economic level than the targets which companies had set themselves. However, the CMA enquiry into Bristol Water's price limits rejected this argument: "for Ofwat to consider that upper quartile performance (historical or otherwise) would match economic levels appeared unlikely to us in general". "As was recognised in the assessment of leakage, local issues can significantly influence the true economic level of performance"⁵. It did, however, note that in this case "the impacts of the concerns raised were not particularly material".

Factors which could influence the local economic level of service include, for example:

- Population density could affect the economic level of water supply interruptions, make it more difficult to reach mains bursts causing supply interruptions.
- Rainfall levels and topography could affect the economic level of sewer flooding.

⁴ The Future Role of Customer and Stakeholder Engagement in the Water Industry, First Economics for UKWIR, 2015

⁵ CMA (October 2015), Bristol Water plc price determination Final Report

- The nature of raw water quality affects the costs of improving water to reduce the number of customer contacts on water taste and odour.

Evaluation

The tables below evaluate against Ofwat’s objectives (see Section 2) the alternatives of:

- Ofwat setting targets based on comparative assessment.
- Companies setting targets based on local engagement.

Ofwat setting targets based on comparative assessment

Objective	Assessment	Reasons
Encourage service providers to focus on their customers over the longer term, rather than focusing their effort around periodic price reviews.	X	A target which is set by the regulator at price reviews encourages focus on the regulator rather than customers, and on measures which will improve short-term performance.
Build on the customer-focused approach to PR14 and promote and maintain genuine customer engagement that drives companies’ businesses.	X	Setting regulatory targets encourages focus on these targets rather than on the issues which have emerged from engagement (an issue mentioned by a number of CCG chairs at the recent Ofwat workshop).
Encourage service providers to discover new ways of delivering outcomes to customers, which reduce cost and improve service.	✓✓	Setting tougher targets is likely to encourage innovation to reduce costs (although it may encourage focus on short-term solutions).
Encourage service providers to discover and reveal the efficient cost of providing services.	?	Setting tougher targets may reduce costs but may go beyond what is cost-beneficial.
Align the interests of investors, management and customers.	X	Investor interests will be met by achieving targets, which are not necessarily aligned with customers’ interests.
Maintain customer confidence.	✓?	Ensuring that companies cannot earn targets for poor performance may increase customer confidence (but local priorities being overwritten may cause concerns).
Maintain investor confidence	X	Investors welcome comparative competition but will be concerned that targets which do not reflect local circumstances will mean that, in some cases, even efficient companies cannot earn an appropriate return.

Companies set targets based on local engagement

Objective	Assessment	Reasons
Encourage service providers to focus on their customers over the longer term, rather than focusing their effort around periodic price reviews.	✓	Setting local targets will enable actions to be planned which will deliver over the long term.
Build on the customer-focused approach to PR14 and promote and maintain genuine customer engagement that drives companies' businesses.	✓	Setting targets locally through engagement will encourage focus on customer priorities which have emerged through research and engagement.
Encourage service providers to discover new ways of delivering outcomes to customers, which reduce cost and improve service.	✓	Innovation may be encouraged by less focus on regulatory targets. However, the incentives for efficiency will be less strong.
Encourage service providers to discover and reveal the efficient cost of providing services.	?	There will continue to be incentives to outperform but less stringent targets may reduce the incentive to discover efficient costs.
Best align the interests of investors, management and customers.	✓	Locally-set targets based on engagement will ensure that incentives reflect customer priorities.
Maintain customer confidence.	X	Customers are likely to wish to see targets based on local consultation. But they may have less confidence in a framework where companies can earn a return for poor performance (stakeholder concerns about this were one reason for Ofwat introducing comparative assessment).
Maintain investor confidence	✓	Investors will be more confident that efficient companies can earn an appropriate return.

The principal issues with setting targets based only on local engagement are whether it would provide sufficient incentives for poorly-performing companies to improve, and whether customer confidence would be maintained. However, an approach based on comparative assessment detracts from a customer-focused approach and may lead to a level of service which customers are not willing to pay for. The following section assesses some options for developing the framework to assess whether they would better meet objectives.

4 Developing the framework

Ofwat options

At its stakeholder workshop on outcomes in June, Ofwat set out a number of options for developing the framework. These included:

- Moving from upper quartile to closer to, or at, frontier performance.
- Using dynamic targets, based on actual performance in the period, rather than on past performance
- Using forecasts for setting targets rather than past performance.

Any of these changes would have greater disadvantages than the PR14 approach in terms of:

- Reducing the role of customer engagement
- Increasing the likelihood that targets would go beyond the economic level.
- Reducing the extent to which earning rewards could reasonably be considered to be any part of the overall risk / reward balance.

In addition, dynamic targets might discourage investment to deliver improvements because it would be uncertain what impact this would have on rewards or penalties.

Introduction of any of these changes should be linked with a change to the approach to customer engagement, to shift the focus away from areas where targets are being set through comparative assessment. In the absence of this, resources will be wasted on research which is not being used for setting targets. A company could, for example, carry out a costly revealed preference survey to determine how much it should invest to reduce water quality complaints. But if a target is imposed centrally then the results would not be used.

Other potential changes

There are a number of changes which could be made to align the incentive framework more closely with Ofwat objectives. These include:

- Basing upper quartile performance on a basket of measures (as included in Ofwat's options).
- Reducing the number of measures where comparative assessment is applied.
- Introducing a dead band, rather than penalties, in the range from median to upper quartile performance (Ofwat used a deadband from upper quartile performance in its PR14 determinations).
- Making an economic assessment of optimum service levels.

These possibilities are evaluated below.

Option	Analysis
<p>Basing upper quartile performance on a basket of measures.</p>	<p>This possibility was raised at the Ofwat workshop in June. It would be possible to make adjustments only where a company was under upper quartile on a basket of measures, rather than individual measures.</p> <p>The advantages of such an approach are:</p> <ul style="list-style-type: none"> • It increases the scope for local engagement, as trade-offs can be made between the different measures. • It makes it less likely that performance on individual measures would go beyond the economic level. <p>An approach would be needed to combine measures into an overall basket. Some options are set out in Appendix 1.</p> <p>The basket of measures approach could, however, still lead to companies going beyond the economic level of service, and cause some investor concerns about whether companies would earn an adequate return.</p>
<p>Reducing the number of measures where comparative assessment is applied.</p>	<p>There is a stronger case for national targets where there are national statutory standards. Of those measures where comparative assessment was applied at PR14, this applies to drinking water compliance and pollution incidents. The UKWIR report on ODIs recognised that different approaches could be appropriate for different categories of measures⁶.</p> <p>Applying this distinction, targets for supply interruptions, sewer flooding and water quality contacts would be set based on local engagement rather than comparative assessment.</p>

⁶ Setting Performance Commitments and Incentives to Deliver Best Value for Money, Frontier Economics, UKWIR, 2016

Option	Analysis
Introducing a dead band, rather than penalties, in the range from median to upper quartile performance.	<p>This would enable some flexibility to reflect local priorities and local costs of delivering improvements in each service.</p> <p>It would avoid the issue of companies being able to earn rewards while performing poorly.</p> <p>The disadvantage would be that incentives for improvement would be removed over the range between median and upper quartile.</p>
Making an economic assessment of optimum service levels.	<p>This would require companies to demonstrate:</p> <ul style="list-style-type: none"> • That the proposed level of service is economic, given local costs and customer valuations. • How local factors affect costs of delivery compared with other companies, if current performance is below the level of others. <p>This would ensure that targets are based on local priorities, while ensuring that companies can only earn rewards by innovating to deliver improvements at lower cost.</p> <p>This approach is most appropriate where there are no statutory standards and confining it to such measures would make it feasible in terms of the work required to verify the analysis.</p>

Preferred option

On the basis of the above analysis, our preferred option is a combination of:

- Continuation of the comparative assessment approach for measures subject to statutory standards – water quality compliance and pollution incidents.
- Introduction of an economic assessment for other measures.

We consider that such an approach would encourage increased focus on customers, encourage efficiency and align the interests of investors and customers. It would therefore meet Ofwat objectives.

5 Allocation of responsibilities at PR19 between Ofwat and CCGs

ODIs are an integral part of the risk-reward balance and the economic regulation incentive regime, which is Ofwat’s responsibility. However, they are also a reflection of customer priorities, identified from local engagement, for which CCGs have a clear role. Therefore the division of responsibilities is not clear and at PR14 the balance between Ofwat and CCGs was

unclear until the end of the process. The UKWIR report on the future role of customer engagement noted the need to clarify respective roles: “One of the main themes of our discussions with the sector was the need in PR19 for a clearer definition of the roles and responsibilities of some of the main players in the customer engagement and price review process. This applied mainly to CCGs and Ofwat...”⁷

The Water 2020 publication in May 2016 set out the remit for CCGs as being to challenge the quality of a company's customer engagement, and the extent to which the engagement is reflected in the company's plan. In this context, Ofwat states that “CCG reports should focus on those issues that customer engagement are most likely to genuinely influence, including but not necessarily limited to: outcomes (including PCs and ODIs); and affordability of bill impacts.”.

The UKWIR report also suggested an optimal allocation of tasks in relation to outcomes and ODIs, with Ofwat taking the lead on analysis of relative performance of companies, and CCGs taking the lead on customer preferences and trade-offs.

Although both Ofwat and CCGs will have some involvement in all aspects of PCs and ODIs, the balance between them will vary between the different aspects. The diagram below sets out a potential division of responsibilities, aligned with our preferred option, with the following table suggesting the reasons for this balance.



⁷ The Future Role of Customer and Stakeholder Engagement in the Water Industry, UKWIR, 2015

Issue	Roles
Setting targets – local discretion	It is the CCGs’ role to challenge companies’ research and engagement, and whether this is reflected in companies’ plans. CCGs taking the lead on targets where there is local discretion fits with this role. Ofwat would, however, have a role in ensuring that companies had adopted an economic level.
Setting targets – national standards	Where there are national standards for service delivery Ofwat is best placed to determine targets which appropriately reflect this.
Overall potential impact on bills	CCGs are likely to have a strong view on what customer research shows about customer willingness to pay higher bills. However, Ofwat also has a strong interest in the extent to which there are service delivery incentives on companies. Therefore this issue is shown as equally balanced between CCGs and Ofwat.
Incentive rates	
Balance between rewards and penalties	The balance between rewards and penalties has to be determined as part of the overall risk-reward framework, so Ofwat has the lead role. However, the balance may also be affected by customer research on the value of avoiding deterioration in service relative to the value of further improvement. Therefore CCGs also have a role.
Comparative information	As noted in the UKWIR report, for data collection and provision of comparisons Ofwat, with its sector-wide focus, is the more natural candidate for this role than CCGs.

6 Long-term incentives

It is one of Ofwat’s objectives to encourage companies to focus on their customers over the longer term, rather than focusing their effort around periodic price reviews. ODIs fixed for a five-year period may encourage options which have an immediate impact rather than those which have the optimum impact over the long term. For example:

- Action to address sewer blockages produces an impact in the current period at lower cost than increasing sewer capacity, but risks problems which lead to repeat flooding being given lower priority.
- Catchment management schemes may not have an observable impact on raw water quality until at least the following five-year period.

If ODIs could be extended to provide rewards or penalties beyond the current period then this could incentive spending to deliver long-term benefits. For this to be workable it would require performance commitments, incentive rates and expenditure assumptions to be fixed beyond the current five-year period. The difficulties with this would be:

- It would not always be possible to clearly separate the expenditure attributable to the area of service; for example, expenditure which has an impact on sewer flooding may also have other drivers. This would make it difficult to fix a part of total spend for the following period.
- It would require regulatory commitment beyond the current price review period, whereas on other issues Ofwat has been reluctant to fetter the discretion of its future decisions.
- It would be difficult to avoid reopening this issue if at the time of the following price review costs or performance were markedly different from the levels expected when targets and costs were set.

A long-term ODI would be most easily implemented where only one-off expenditure is involved and the issue can be clearly separated from other aspects of service delivery. For example, if a company had a target for % of customers served by more than one works, then:

- This would require investment which yields a long-term benefit, so a longer-term reward would be justified.
- It involves a one-off expenditure, so there is no need to fix expenditure for the subsequent price review.
- The expenditure would be likely to be clearly separable from other expenditure drivers.
- As Ofwat notes, setting commitments on performance a long way into the future could encourage companies to be over-cautious in their forecasts.

In view of the difficulties in setting long-term ODIs, we support the approach set out in Ofwat's June 2016 document that it will consider proposals by companies for long-term commitments but will not require them. Where there are long-term benefits, it is sometimes possible to identify measures where improvement can be identified in the current period, even if the ultimate impact on service is not yet visible (as in, for example, Severn Trent's catchment management ODI, which is based on changes in farmer behaviour rather than ultimate impact on raw water quality).

In view of the potential benefits from increasing focus on long-term goals, we also support Ofwat's proposal that companies should provide long-term aspirations for all their PCs at PR19, based on customer and stakeholder engagement.

7 Asset health measures

At PR14 Ofwat moved away from a standard approach to measuring and reporting asset health ("serviceability") to letting companies propose their own measures as part of their performance commitments. This resulted in a wide variety of approaches, in terms of:

- Use of single measures or a basket.

- Whether the incentive was mechanistic or discretionary.
- The way in which the individual measures were combined into an overall score.
- The size of penalty which could be incurred.

The change had some advantages in that:

- It enabled companies to focus on those measures most relevant to their assets and operating environment.
- A move to a clearer mechanism for penalties, at least by some companies, was an improvement.
- There was a move away from some measures which had a remote linkage to service delivery.

However, the choice of measures is not a suitable issue for local engagement, because, as noted by some CCG chairs at the Ofwat workshop, they do not have the expertise to determine appropriate measures. CCGs take maintaining asset health as given; their role is in ensuring customer priorities are reflected in the plan and working together to develop better solutions to service delivery.

Although some variation between companies is appropriate, the variation in company circumstances is not sufficient to justify the current extent of variability. Therefore we support some move towards harmonisation, without requiring fully standardised measures. This could include guidance on appropriate measures from which companies could choose, and on the appropriate level of asset health penalties.

8 The Service Incentive Mechanism (SIM)

SIM has been very effective in delivering improvements in customer service. The future of SIM is, however, affected by the UK Government decision on whether to introduce competition into the household retail market. Although we expect there will be some continuing monitoring of customer service in a competitive market, an incentive mechanism would not be appropriate for retail activities as the market provides the incentive. There should, however, be some form of continuing incentive mechanism for the aspects of customer service delivery attributable to wholesale activities. Even if competition is not introduced, it would be desirable to separate SIM rewards and penalties into wholesale and retail aspects, rather than attributing it solely to retail.

It would be appropriate to review SIM, even without the potential introduction of competition. Currently SIM is set on a different basis from other ODIs. We consider that the approach should be more integrated.

Initially there were clear genuine differences between companies and SIM has driven real improvements. However, as noted by Ofwat in its May publication, scores are now converging. With differences narrowing between companies, these differences are now much more likely to be due to factors such as:

- Differing types of contact, e.g. customers in debt are less likely to be satisfied than, for example, customers moving house.
- Demographic or cultural differences, e.g. women tend to give higher scores than men – if in one company area a higher proportion of women deal with water bills they may get a higher SIM score.

This should be addressed by:

- Research to establish the value to customers of differences in service; currently the values are arbitrary. This is in contrast to ODIs where incentive rates are based on customer valuation.
- A switch to basing rewards and penalties on absolute differences in scores between companies, so that if the difference in scores is small then rewards and penalties would be small.

Such a change would ensure that Ofwat can meet the objective for SIM, set out in the Water 2020 consultation, that customers' needs and requirements should be at its heart and that it should offer value for money.

We also consider that the sample sizes utilised in SIM are too small and should be increased. Considerable weight is put by companies on each quarter's results but the size of the sample means that differences may be just due to random fluctuations. This change could be made in the current period, whereas further development of the measure should be reviewed in the light of decisions on introduction of competition.

In developing a future SIM or its replacement, there are a number of further issues to address in terms of the detailed working of the mechanism. These cannot, however, be resolved until decisions are made on introduction of retail competition. These include:

- Scoring is currently dominated by phone contacts, but this should in future should be based on the full range of communication channels – this is becoming increasingly important.
- There is a case for switching to a mechanism which includes some element of scoring for all customers' perception, rather than just the small minority who contact companies. A possible approach to this was developed in the UKWIR report on developing an alternative SIM⁸. This change might not, however, be appropriate if

⁸ Alternative SIM Measure: Implementation Plan, UKWIR, 2014

competition were to be introduced, as it would be difficult to identify whether perceptions related to the wholesale or the retail company.

9 The structure of incentives

At PR14, there was considerable variation between companies in incentive rates and in the use of caps, collars and dead bands. The extent of variation between incentive rates was greater than is likely to be attributable to real differences in customer valuation of aspects of service. However, without changing the framework, these differences should be reduced by a less mechanistic use of willingness to pay results, as set out in our customer research and engagement paper⁹. This includes:

- Comparing data with previous results and with other companies' results and methodologies.
- Carrying out a reasonableness check.
- Checking the statistical validity of the results.
- Testing the impact of alternative questions and context, and of changing the range of performance improvement.
- Carrying out more in-depth surveys of specific aspects of service.
- Modifying results to reflect results of other research.

We consider that, with these improvements to willingness to pay, the approach of basing incentive rates on willingness to pay is correct. There should, however, be some changes from PR14:

- The approach should be simpler and less mechanistic, with some judgement allowed, subject to the following constraints:
 - Rewards should be set so that there should be some net benefit to customers, after payment of any rewards.
 - Penalties should be sufficient that companies do not benefit from non-delivery.
 - Rewards should not be so high that companies can immediately benefit from making improvements beyond their business plan, given what is currently known about marginal costs.

All these constraints should take into account the interaction with the totex mechanism (see Appendix 2 for details of how this could operate).

- There should be a balance between a “top down” approach and “bottom up” approach:

⁹ Improving Customer Research and Engagement, United Utilities, February 2016

- The overall level of rewards and penalties should ensure that there are sufficient overall incentives to deliver a high standard of service and innovate to deliver improvements.
- The relative rewards and penalties for different aspects of service delivery should reflect customer priorities and values.
- There should be a presumption in favour of symmetry between rewards and penalties, where customers are willing to pay for improvements. Higher penalty rates discourage innovation.

The use of caps, collars and deadbands varied considerably between companies. These can reduce the effectiveness of incentives as within a deadband and beyond a cap or collar there is no further incentive on delivery. Therefore a reduction in their use would be desirable.

Experience with the operation of ODIs may lead companies to take a less cautious approach but some guidance from Ofwat which encourages greater consistency could be desirable.

10 Conclusions

The table below summarises our proposed changes to the performance measure and incentive framework for PR19. We consider that these changes will meet Ofwat’s objectives of encouraging focus on customers, delivering efficiency and align interests of investors and customers.

Issue	Roles
Common information and measures	Collection of information on a common basis and use of a limited set of common performance measures for some key aspects of service.
Setting targets	Continuation of the comparative assessment approach for measures subject to statutory standards – water quality compliance and pollution incidents. Introduction of an economic assessment for other measures.
Ofwat / CCG roles	Greater clarity of roles, with CCGs taking the lead where targets are subject to local discretion.
Long-term ODIs	Long-term commitments not required by Ofwat, but companies can propose them. Companies to provide long-term aspirations for all their PCs at PR19.
Asset health measures	A move towards some harmonisation, without requiring fully standardised measures.



Issue	Roles
SIM	Research to establish the value to customers of differences in service, and a switch to basing rewards and penalties on absolute differences in scores. Further work is also needed to update and improve the approach to the survey.
Structure of incentives	The approach should be simpler and less mechanistic, with some constraints to ensure that ODIs benefit customers, rather than mechanistic formula. There should be a presumption in favour of symmetry between rewards and penalties.

Appendix 1 - Developing a basket of measures for overall upper quartile assessment

The possibility was raised at the Ofwat workshop in June of making adjustments to targets only where a company was under upper quartile on a basket of measures, rather than individual measures.

The advantages of such an approach are:

- It increases the scope for local engagement, as trade-offs can be made between the different measures.
- It makes it less likely that performance on individual measures would go beyond the economic level.

If this were to be adopted, a methodology would be needed to combine measures into an overall basket. Two possible approaches are described below.

Method	Description
Average of rankings	An average of the rankings for each service measure. Upper quartile ranking would be determined from the range for the average rankings.
Scoring system	<p>Scoring each company's performance on each aspect of service. With 18 companies, the four companies with the highest scores are above upper quartile.</p> <p>The scoring could be based on the range between best and worst performing company (as was used in the past in the Overall Performance Assessment scoring). This could be in the form:</p> $\text{Score} = 100 \times (1 - (\text{Company} - \text{Best}) / (\text{Worst} - \text{Best}))$ <p>This would give a range for each service measure of 0 to 100.</p> <p>Overall upper quartile ranking would be determined from the range of company total scores.</p>

The average of ranking approach has the advantage of simplicity, but does not take into account whether a company with relatively poor performance is close to the better performing companies or falls well short of them.

It would be possible to apply different weights to different aspects of service but unless there is some reason to give greater weight to one aspect of service (for example, results from customer research on priorities) then equal weighting would be appropriate.

The table below illustrates the approach, applied to ten companies and three performance measures.

Service measure	Company										UQ
	A	B	C	D	E	F	G	H	I	J	
Measure 1											
Performance	87	59	54	64	169	135	76	49	44	59	55
Method 1 – Rank	8	4	3	6	10	9	7	2	1	4	
Method 2 - Score	66	88	92	84	0	27	74	96	100	88	
Measure 2											
Performance	0.32	0.38	0.07	0.17	0.38	0.1	0.19	0.22	0.3	0.16	0.16
Method 1 – Rank	8	9	1	4	9	2	5	6	7	3	
Method 2 - Score	19	0	100	68	0	90	61	52	26	71	
Measure 3											
Performance	51	32	100	52	61	85	80	82	38	57	51
Method 1 – Rank	3	1	10	4	6	9	7	8	2	5	
Method 2 - Score	72	100	0	71	57	22	29	26	91	63	
Method 1 – Average Rank	6.3	4.7	4.7	4.7	8.3	6.7	6.3	5.3	3.3	4.0	4.7
Method 2 – Average Score	52	63	64	74	19	47	55	58	72	74	70

A company below overall upper quartile performance could then choose how to move to upper quartile, based on customer priorities and costs of improvement. For example:

- Company A is below Upper Quartile by both methods (6.3 compared with 4.7 by average ranking and 52 compared with 70 by average points score).
- It needs to improve by:
 - Improving average ranking by 1.6 (a total of 5 ranking points) for Method 1.
 - Increasing average score by 18 (a total of 54 points) for Method 2.

It could choose to improve performance on the two areas where it performs relatively less well, as illustrated below:

Company A – illustrative revised targets

Service measure	Current	Target	Change
Measure 1			
Performance	87	63	-24
Rank	8	6	-2
Score	66	85	+19
Measure 2			
Performance	0.32	0.18	-0.14
Rank	8	5	-3
Score	19	65	+46
Measure 3			
Performance	51	51	0
Rank	3	3	0
Score	72	72	0
Total			
Average Rank	6.3	4.7	-1.6
Average Score	52	74	+19

By either method, the new targets bring the company up to upper quartile level.

Appendix 2 – The calculation of incentive rates

In its methodology for PR14¹⁰ Ofwat set out its objectives for setting incentives. These were that they should:

- Reflect an appropriate degree of simplicity, clarity and transparency.
- Take account of the penalties and incentives created by other regulatory regimes.
- Appropriately balance risks and rewards between companies and customers.
- Encourage and provide proportionate rewards for innovation.
- Offer appropriate protection for outcome delivery and customers' bills

Ofwat provided a methodology for setting incentive rates for PR14. This was based on the principles that:

- Customers should not pay more for improvements than they are willing to pay.
- Compensation to customers for non-delivery should reflect the value which customers place on the service.
- Companies should not be able to gain financially from non-delivery.
- Companies should only be able to earn rewards by reducing costs below business plan estimates for delivering improvements.

Applying these principles, Ofwat produced a set of formulas for incentive rate calculation, based on:

- WTP values
- Marginal costs
- The proportion of any change in totex which companies bear.

We support the principles which Ofwat set out but their application needs to be reviewed for PR19. In particular, they are affected by the recognition that WTP valuations have their limitations and plans need to be based on wider evidence on customer priorities and values.

We suggest the following approach would meet the principles set out above:

- The penalty rate should not be less than half the marginal cost saving from service deterioration (where known).
- The reward rate should not be more than half the marginal cost of service improvement.
- There should be a presumption in favour of symmetry between incentive rates for rewards and penalties, as a bias towards penalties discourages innovation. Asymmetry

¹⁰ Setting price controls for 2015-20 – final methodology and expectations for companies' business plans, Appendix 1: Integrating the calibration of outcome delivery and cost performance incentives, Ofwat, July 2013

would be appropriate if there was evidence that customers value avoiding deterioration significantly more highly than they value improvement.

- Using an incentive rate of half customers' willingness to pay is a good general approach, but it should be subject to the following check, balancing a "top down" approach and "bottom up" approach:
 - The overall level of rewards and penalties should ensure that there are sufficient overall incentives to deliver a high standard of service and innovate to deliver improvements.
 - The relative rewards and penalties for different aspects of service delivery should reflect customer priorities and values.
- The potential resulting rewards and penalties as a result of the ODIs should, therefore, be cross-checked against whether:
 - These rewards and penalties for each aspect of service align with customers' priorities.
 - The overall potential reward is acceptable in terms of affordability and customer willingness to pay higher bills for better service.
 - The amount of return being dependent on service delivery is consistent with objectives of ensuring that companies deliver for customers.
 - The balance between rewards and penalties leads to an appropriate balance between risk and reward, taking into account the other incentive aspects of the price-setting framework.

Determining the incentive rate by the halving of customer values and marginal costs reflects the interaction with totex incentives, in which companies bear approximately half the cost of any increase or reduction in cost. Since neither customer valuations nor marginal costs are known with certainty, the calculations cannot be precise. This suggests that there is no need to make minor adjustments for the precise proportion of costs which a company bears. A standard 50% rule would be reasonable unless the proportion of additional totex a company bears at PR19 is significantly different from 50%.

Since these incentive rates will have been subject to an overall judgement based on customer priorities and affordability, there should not be a subsequent adjustment for tax because this would mean that the incentive rates could no longer deliver an appropriate impact on bills.