November 2016

Trust in water

A consultation on the outcomes framework for PR19
Appendix 2 – More powerful outcome delivery incentives

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Appendix 2 – More powerful outcome delivery incentives

This is appendix 2 to the consultation on the outcomes framework for PR19. It considers why outcome delivery incentives (ODIs) matter to customers and the case for making ODIs more powerful at PR19.

Figure 1 –Appendix 2 relates to the second theme of the outcomes consultation

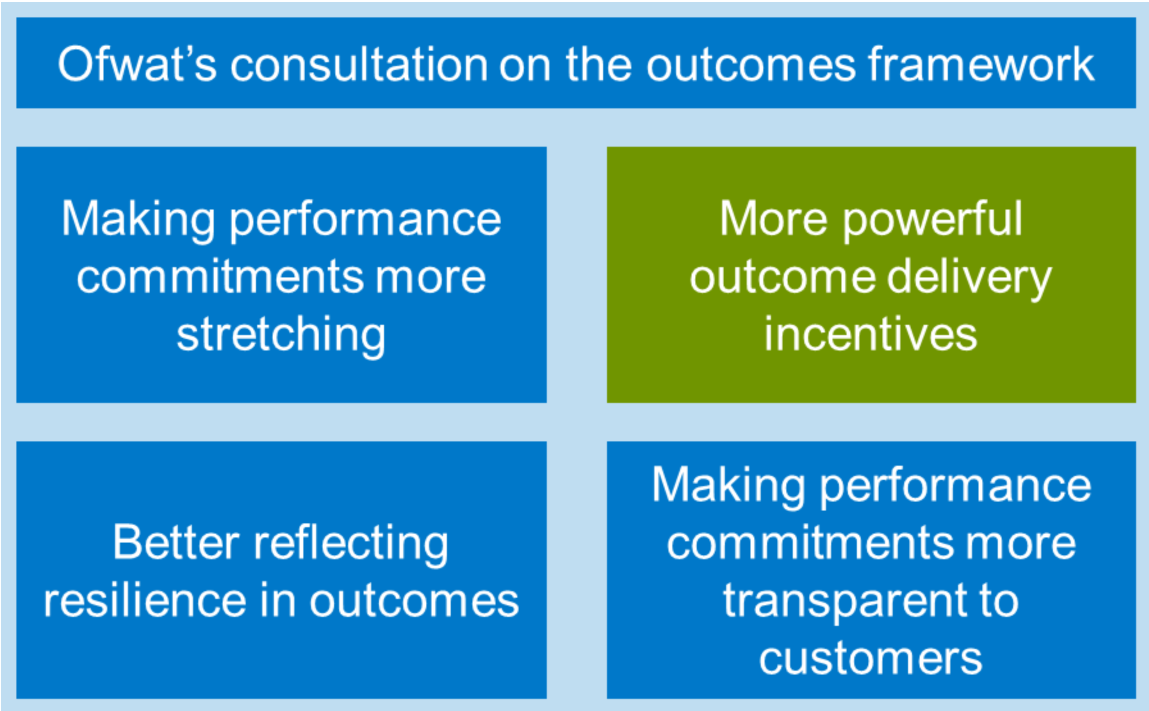


Table 1 – Our proposals for making ODIs more powerful

Proposals for making ODIs more powerful	Status
1. We consider ways in which the reputational impact of ODIs could be enhanced	We are inviting views on how the reputational impact of ODIs could be enhanced. We expect to set out our decision on any measures to enhance the reputational impact of ODIs alongside the methodology consultation.

Proposals for making ODIs more powerful	Status
2. We are discussing with the sector a licence modification to allow in-period ODIs for all companies which will bring the rewards and penalties closer in time to the service performance that generated them.	We are consulting on in-period ODIs through the section 13 licence modification consultation. We expect to consult on our methodology for in-period ODIs in the methodology consultation.
3. We discuss the benefits of end-of-period ODIs (those reconciled at price reviews) being linked to revenue rather than adjustments to the Regulatory Capital Value (RCV) which take longer to have an impact on companies' revenues.	We are inviting early views on whether end-of-period ODIs should be linked to revenue rather than the RCV. We expect to consult on a preferred approach in the methodology consultation.
4. We discuss removing the aggregate cap and collar on ODIs which limit ODI rewards and penalties to two percentage points of return on regulated equity.	We are inviting early views on whether we should remove the aggregate cap and collar for PR19. We expect to consult on a preferred approach in the methodology consultation.
5. We could encourage efficient companies to hit an overall range for ODI rewards and penalties that was higher than the ranges companies proposed and agreed to at PR14.	We decided in the May 2016 Water 2020 publication that we would publish early indications on the outcomes return on regulated equity range. We will consult on the range in the methodology consultation.
6. We consider alternative approaches to setting ODI rewards and penalties for PR19 drawing on a wider set of information on customer preferences.	We are inviting early views on the approach to setting ODI rewards and penalties. We expect to consult on guidance for setting ODI rewards and penalties in the methodology consultation.
7. We could adopt industry-standard ODIs for the common performance commitments with powerful rewards and penalties.	We are inviting early views on adopting industry-standard ODIs for the common performance commitments. We expect to consult on a preferred approach for industry-standard ODIs in the methodology consultation when we can consider all price review incentives in the round.
8. We could encourage companies to increase the proportion of ODIs with financial rewards	We are inviting early views on increasing the proportion of ODIs with financial rewards. We will consider further whether any guidance is needed on the proportion of ODIs with financial rewards. If we do take forward guidance on this issue we expect to consult on it in the methodology consultation.

Proposals for making ODIs more powerful	Status
9. We consider the detailed design of ODIs such as the use of deadbands	We are inviting early views on the detailed design of ODIs. We expect to consult on guidance on the detailed design of ODIs in the methodology consultation.
10. We consider the implications for ODIs of an approach based on a variable cost of equity that is partly based on how stretching a company's performance commitments are.	We have already consulted on this issue through our consultation on the approach to the cost of debt for PR19 in September 2016. We invite early views on how a variable cost of equity might interact with ODIs. We expect to consult on a preferred approach to incentives for high quality, ambitious and innovative business plans in the methodology consultation.
11. We consider the implication of more powerful ODIs, for example, performance commitments will need to be stretching, clearly defined and closely reflect what their customers want.	We are inviting early views on what changes might be needed to performance commitments and ODIs if we link more revenue to ODIs. Many of the options overlap with other options in this consultation such as our proposals for making performance commitments more stretching. We expect to consult on a preferred approach in the methodology consultation.
12. We discuss whether 'gated' ODIs could be used, where rewards on some ODIs are contingent on a company incurring no penalties on other ODIs.	We are inviting early views on the principle of 'gated' ODIs. We expect to consult on a preferred approach in the methodology consultation.

1 Introduction

In our outcomes framework companies are incentivised to deliver their performance commitment levels and to outperform them through reputational and financial ODIs.

ODIs have reputational and financial aspects to them. Some performance commitments do not have financial ODIs attached to them, but companies have a reputational incentive to achieve their performance commitments as, for example, they have to report their progress on all their performance commitments to their customers, CCGs and us each year through their annual performance reports (APRs).

Financial ODIs add a financial reward or penalty (or both) to the reputational effect. Financial ODIs help align company management and investors' interests with those of customers. They act as a balance to the financial incentives companies have in relation to financing and costs as part of their price controls. Financial ODIs enhance the reputational impact of ODIs by focusing public attention on performance results.

We are not consulting on any preferred options on increasing the power of ODIs at this stage because we want to consider the power of ODIs together with other price review incentives in the round in the methodology consultation in July 2017. However, we welcome our stakeholders' early views on these issues.

In this appendix we first consider ways in which we could enhance the reputational impact of ODIs. We then consider nine ways in which ODIs could be made more powerful for stretching performance commitments:

1. The greater use of in-period ODIs
2. Linking end-of-period ODIs to revenue rather than the RCV
3. Removing the aggregate cap and collar on ODIs
4. Encouraging companies to hit an overall range for rewards and penalties
5. Issuing guidance on setting ODI rewards and penalties
6. Using industry-standard ODIs for common performance commitments
7. Increasing the proportion of ODIs with financial rewards
8. Guidance on the detailed design of ODIs
9. Using a variable cost of equity alongside ODIs

We also consider the implications for the design of performance commitments and ODIs of more powerful reputational and financial ODIs, to ensure they deliver benefits and are legitimate for customers. We discuss seven areas:

1. More powerful ODIs could improve affordability
2. Bill smoothing can still be applied to more powerful in-period ODIs

3. The need for performance commitments to be stretching
4. Performance commitments and ODIs need to be clearly defined
5. Companies needing to consider more deeply whether their performance commitments reflect their customers' preferences
6. Good quality engagement on the rewards and penalties becomes even more important
7. 'Gated' ODIs could be used where rewards on some ODIs are contingent on a company incurring no penalties on other ODIs

2 Enhancing the reputational impact of ODIs

There is a strong reputational incentive for companies to achieve or outperform their performance commitment levels as they have to report their performance annually to their customers and CCGs who can challenge them on their performance[1]. Companies also submit annual performance reports to us each July.

Making this performance information publicly available enables the direct accountability of companies to the water sector's other regulators and stakeholders, who can and do use it to challenge companies on their performance. We understand that CCWater is working with CCG chairs to compare how well companies are reporting their performance and to compare good practice in CCGs' approaches to commenting on company performance.

Financial incentives can enhance the reputational impact of ODIs. The recent in-period financial ODI draft determinations[2], which attracted considerable media coverage, illustrate the interaction between the financial and reputational aspects of ODIs and the scope for financial ODIs to strengthen reputational incentives to improve performance.

The Discover Water dashboard will enhance the reputational impact of ODIs. It will do this by making information on companies' performance relative to some of their performance commitments easily accessible to customers, in addition to providing comparative performance information based on standard measures. Discover Water will develop over time with input from all its contributors – water companies, CCWater, regulators and government – with enhancements planned for summer 2017. 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.

One of our strategic priorities is to further develop our toolkit to monitor the sector's performance and its resilience. We have already taken measures to enhance the impact of reputational ODIs. We will be publishing information on companies' performance against their commitments and a database which includes companies' performance against all their commitments in mid-December. From July 2017

[1] Companies currently have 212 reputational ODIs out of a total of 527.
[2] Draft determination of Anglian Water's in-period ODIs for 2015-16
Draft determination of Severn Trent Water's in-period ODIs for 2015-16
Draft determination of South West Water's in-period ODIs for 2015-16

companies will also have to report to us their performance on the sub-measures which underlie some of their performance commitments.

We invite views on what further steps we should take to enhance the reputational impact of ODIs either ahead of or at PR19. Some of our stakeholders have suggested the greater use of league tables of performance to enhance the reputational impact of performance commitments. Another suggestion was that there could be a reputational prize for having the best package of performance commitments at PR19. Our proposals in appendix 4 on increasing the transparency of performance commitments should also enhance the reputational impact of ODIs.

3 More powerful financial ODIs

In this section we consider how financial ODIs benefit customers, the balance of financial incentives at PR14 and nine options for making ODIs more powerful.

3.1 How financial ODIs benefit customers

Financial ODIs deliver benefits to customers, but the way in which they do this is not always obvious to customers. It became clear during PR14 that customers supported financial ODI rewards when the context was properly explained, such as the absence of rewards for stretching levels of service performance being likely to imply a higher cost of capital for companies and higher bills for customers.

Financial ODIs are important for aligning the interests of company management and investors with those of customers. The water sector needs external investment to raise the capital needed to maintain and improve services to customers and so it is important that investors can expect to earn a reasonable return on capital for an efficient and well-run company.

Financial incentives are important for driving management focus and providing a return to investors. If investors were asked to invest in companies with a regulatory system that only allowed for penalties, or downside risk, customers would pay for this through a higher cost of capital.

Figure 2 – How a penalty-only approach can lead to higher bills

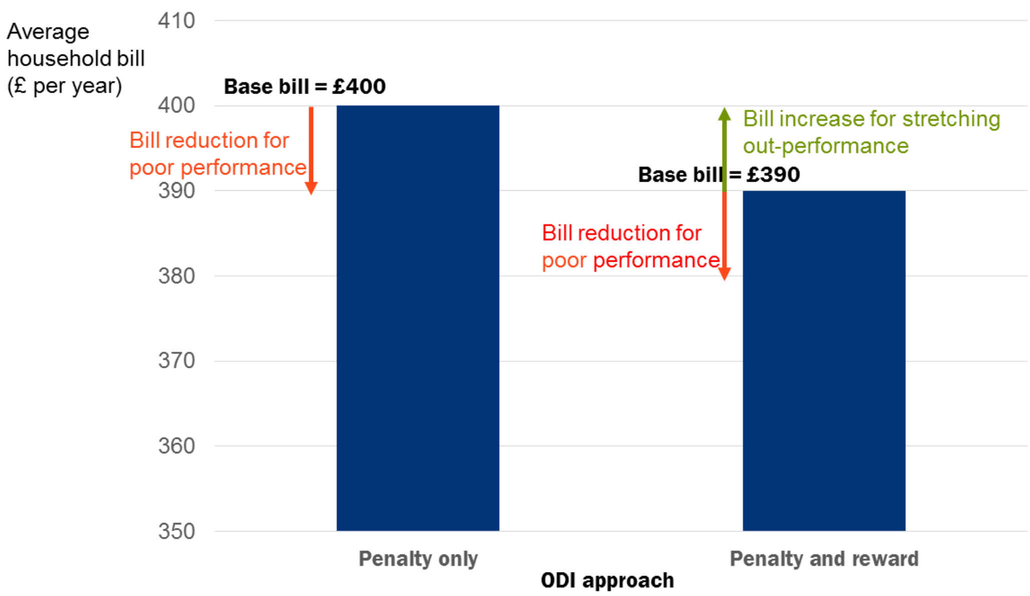


Figure 2 shows how a purely penalty-based outcomes framework could lead to higher bills. We have simplified it to look at only the trade-off between the base cost of capital and the approach to ODIs.

In a penalty-only system the average annual base bill for household customers could be, say, £400. Customers could benefit from up to a £10 reduction through ODI penalties for very poor performance, although in practice companies might avoid penalties altogether or only incur penalties which lead to a small reduction in bills.

With a regime based on ODI penalties and rewards investors are likely to accept a lower base cost of capital as there is scope to earn higher returns through financial rewards for delivering very high quality service to customers. The average annual base bill for household customers could be £390. Customers would still benefit from a bill reduction if the company performed poorly. However, if a company outperformed its stretching performance commitments it could earn a reward and bills would be higher than the £390 base bill level, but would not be higher than the £400 base bill under the penalty-only system. In addition, customers would be receiving a better quality service for a given bill level in the reward and penalty approach compared with the penalty-only approach. The rewards would only be available for service improvements that customers value and this would be tested through customer engagement.

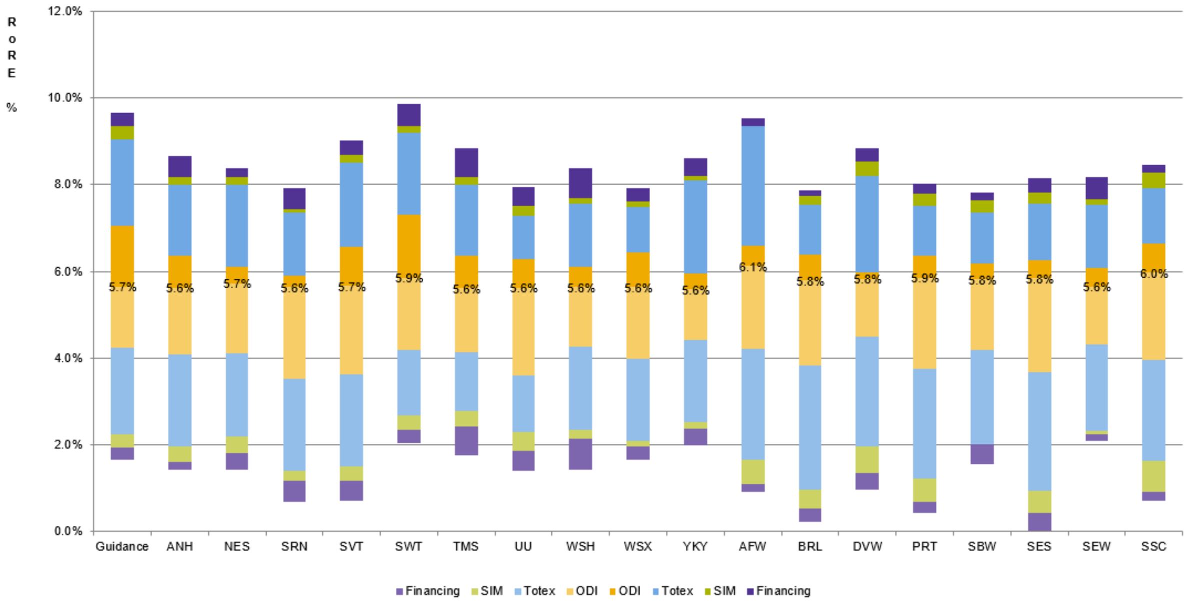
A strong additional benefit of the reward and penalty approach is that it is likely to deliver more innovation and a frontier shift in service quality for customers in the future. The symmetric approach to ODIs reveals new information about service quality that customers, CCGs and we can use to challenge companies to set more stretching performance commitments in the future.

Our approach is in keeping with the recommendations of the Gray Review of Ofwat in 2011 which stated; “Ofwat should seek to ensure that the future framework of incentives provides the right balance between rewards and penalties in the context of the challenges facing the companies, with increased emphasis on incentives for behavioural change” (recommendation 5). This reflected the Review’s concerns that the balance of risk and reward used to be tilted too far towards uncertain and potentially large penalties for failure, with relatively limited rewards for outperformance or innovation.

3.2 The balance of financial incentives at PR14

We and the sector were naturally cautious about how much company revenue could be put at risk through ODIs at PR14, as this was the first time the sector had adopted the outcomes approach.

Figure 3 - Estimated ranges for the return on regulated equity at PR14



The chart above shows the relative returns (on regulated equity) companies could make from different incentives at PR14. There are several issues that emerge.

First, there is considerable variation between companies on the return available due to ODIs relative to other price review incentives. This is particularly noticeable for rewards, with some companies having very little upside on their ODIs. This reflected companies proposing limited rewards and/or us making interventions where we considered companies had not sufficiently justified their rewards. Overall the upside for ODIs looks considerably less than for the totex incentives and is also small relative to the base return on equity.

Second, the ODI ranges might be overstated as they represent a P10 and P90[3] for each individual ODI. By definition P10 and P90 returns are relatively unlikely to occur and this is especially the case cumulatively across all ODIs at the same time.

[3] P10 and P90 can be defined as follows: there is a 10% probability of an outturn occurring below the identified range (P10) and an equal 10% likelihood of achieving a return above the identified range (P90). Note that the P10 and P90 range for totex might also be overstated if companies have more control over their expenditure than implied by the width of the range.

Bearing this in mind the likely variation in return due to ODIs is relatively small compared with other price review incentives.

This matters for customers because the ODIs incentivise companies to deliver stretching levels of service performance. If the ODIs are relatively less powerful than the financing and cost incentives company management will have relatively weak financial incentives to deliver improvements to service.

More powerful financial ODIs can encourage companies to focus on delivering the improvements to their services that customers want. They also reveal information on what performance is possible to enable us to set more stretching commitment levels for the future which will benefit all customers.

The first year of evidence on performance in response to ODIs (2015-16) suggests that companies are focussing on improving their service performance both to earn rewards and avoid penalties. Customers are already benefitting from this improved service.

3.3 Options for making ODIs more powerful

Table 2 summarises the options for making ODIs more powerful. We discuss the options in more detail in the rest of this section.

Table 2 – options for making ODIs more powerful

Option	Description of how the make ODIs more powerful
1. In-period ODIs	The increased use of in-period ODIs can make ODIs more powerful by bringing the rewards and penalties closer in time to the service performance that generated them.
2. Linking end-of-period ODIs to revenue rather than RCV	By applying end-of-period ODIs to revenue rather than the RCV companies would bring the rewards and penalties closer in time to the service performance that generated them (although not as close as if in-period ODIs were used).
3. Removing the aggregate cap and collar on ODIs	Removing the aggregate cap and collar of ± 2% of the return on regulated equity (RoRE) per year will enable companies to propose aggregate ODI packages which are more powerful.
4. Encourage companies to hit an overall range for rewards and penalties	By setting out an indicative RoRE range for rewards and penalties relatively early, and encouraging companies to achieve it, we can promote companies engaging with customers on proposals for stronger ODIs, which is a precursor to having stronger ODIs. We decided in the May 2016 Water 2020 consultation that we would publish early indications on the outcomes return on regulatory equity (RoRE) range for efficient companies.

Option	Description of how the make ODIs more powerful
5. Guidance on setting ODI rewards and penalties	We are considering alternative approaches to setting rewards and penalties for our PR19 guidance which could allow for the use of more evidence on customer preferences than stated preference willingness to pay (WTP) or using top-down approaches. The revised guidance could enable the setting of stronger in-period ODIs.
6. Industry-standard ODIs	If we set industry-standard ODIs for the common performance commitments we could set them with powerful rewards and penalties.
7. Increasing the proportion of ODIs with financial rewards	Increasing the proportion of performance commitments with financial ODIs could ensure companies are incentivised to deliver all the services that matter to customers and increase the overall power of their ODIs.
8. Detailed design of ODIs	The design of deadbands and how incentives apply (e.g. penalties which trigger in full once a company has performed at the deadband or which increase depending on how poor performance is) can affect the power of ODIs.
9. Variable cost of equity	We could adopt a variable cost of equity, partly based on how stretching a company's service performance commitments are. Companies would need to calibrate their ODIs to take account of the variable cost of equity menu choices to achieve a powerful overall incentive package related to service delivery.

3.4 In-period ODIs

At PR14, three companies - Anglian Water, Severn Trent Water and South West Water - proposed a licence modification to allow for a number of ODIs to have a financial impact on their revenue before 2020 (i.e. in-period ODIs). We issued a consultation on our first draft determinations[4] for these three companies' in-period ODIs on 1 November 2016.

In-period ODIs sharpen the incentive on company management to deliver what matters to their customers. With in-period ODIs a company's performance in 2015-16 generates a reward or penalty which has a financial effect on the company in 2017-18. This is much closer in time than a financial effect which takes place from 2020 onwards and is more likely to focus a company's management on delivering for its customers. The sharper incentive should drive a higher level of performance that will benefit the company's customers.

In-period ODIs also improve the accountability of companies to customers by requiring them to explain their performance more frequently and how it impacts on

[4] Draft determination of Anglian Water's in-period ODIs for 2015-16
Draft determination of Severn Trent Water's in-period ODIs for 2015-16
Draft determination of South West Water's in-period ODIs for 2015-16

their bills. This may enhance the reputational impacts of ODIs, as discussed above. They also require companies to compensate their customers for poor performance more quickly.

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. There are also reasons why end-of-period ODIs might be more appropriate than in-period ODIs, for example, if a company was delivering an investment programme where its success should be judged at the end of the period rather than during it.

Reflecting the benefits of both in-period and end-of-period ODIs the three companies with a licence modification allowing for in-period ODIs in 2015-20 proposed a package of both in-period and end-of-period ODIs for this price control period. The licence modification enabled the three companies to propose an approach to reconciling their ODIs which reflected their customers' views and incentivised the companies appropriately.

In December 2015 we consulted on in-period ODIs for all companies. There was general support for our proposal for a licence modification to allow for in-period ODIs.

Over the summer we discussed the licence modification with companies. In the discussions we considered approaches to bill smoothing. The proposed licence modification allows for rewards or penalties to be spread over more than one year, if appropriate. Our discussions also covered the need for the in-period ODI process not to become an administrative burden. We are proposing to address this through our PR19 methodology where we will set out a simple and transparent process for the in-period ODI determinations.

We are consulting with the sector on a licence modification to allow for in-period ODIs for all companies. Having this licence condition in place will enable companies to engage with their customers on the appropriate balance between in-period and end-of period ODIs (those reconciled at price reviews) and we will expect companies to do this. We will review the balance between in-period and end-of-period incentives in the risk-based review of business plans.

We recognise that most of the issues relating to in-period ODIs are being dealt with through the licence modification consultation and process, but stakeholders can still comment on in-period ODIs in response to this consultation.

3.5 Linking ODIs to revenue rather than the RCV

Companies can also bring rewards and penalties closer in time to the service performance that generated them for end-of-period ODIs (i.e. ODIs which are reconciled at the following price control). Companies can do this by linking end-of-period ODIs to revenue rather than the Regulatory Capital Value (RCV). This should sharpen the incentive for companies to deliver on their performance commitments to customers.

Table 3 – Companies' current ODIs and how they are implemented

How ODI is implemented	Number
Adjustment to revenue	212
Adjustment to RCV	70
Adjustment to revenue or RCV (different approach for reward and penalty)	19
Adjustment through reinvestment (without addition to RCV)	14
Total number of financial ODIs	315

At present companies have 315 financial ODIs. Of these 212 apply through adjustments to revenue. 89 apply through adjustments to the RCV in whole or in part. The remaining 14 involve reinvestment of penalties by the company without any addition to the RCV.

While companies perceive there to be benefits to growing their RCVs, adjustments to the RCV resulting from ODIs are relatively small and might not incentivise management as effectively as changes to revenue. In addition the impact on companies' revenues from adjustments to the RCV can take over 20 years to fully take effect.

We consider there is more benefit to customers if end-of-period ODIs are revenue adjustments so that the impact of end-of-period rewards and penalties on the company is closer in time to the performance that generated it.

We also consider that adjustments to revenue are more appropriate than ODI penalties being applied through reinvestment. The reputational impact of reinvesting penalties in a company's business might be weaker than returning the revenue to customers. Companies will still need to invest to improve their performance to avoid ODI penalties in the future.

3.6 Aggregate cap and collar on ODIs

We introduced an aggregate cap and collar of ± 2% of the return on regulated equity (RoRE) per year at PR14[5]. We introduced the aggregate cap and collar because the outcomes framework was a new and innovative approach to incentives for the water sector at PR14. The aggregate cap and collar provide a safeguard to customers and companies because they place maximum limits on the total cost of ODIs to them. The aggregate cap and collar also enabled us to avoid intervening on many individual ODIs to ensure the overall reward and penalty across all the ODIs was appropriate for customers and companies.

We always recognised that the aggregate cap and collar would reduce companies' incentives to deliver for customers as they approach either the reward cap or penalty collar. Our modelling at PR14 suggested that, while the aggregate cap and collar would provide back-stop protection, these aggregate limits were not expected to bite at all for most companies, and only in relatively unlikely circumstances for the other companies. At P10 we estimated that only three companies would be affected by the aggregate collar and at P90 we estimated no companies would be affected by the aggregate cap[6].

While the aggregate cap and collar of ± 2% of RoRE is not expected to bite often, if at all, during 2015-20, if we increase the power of ODIs overall at PR19 we will need to consider whether the aggregate cap and collar should be widened or removed altogether.

We are inviting early views on whether we should remove the aggregate cap and collar for PR19. The main justification for its introduction at PR14 was the novelty of the ODI framework, but the ODI framework will no longer be novel at PR19. We expect to consult on a preferred approach in the methodology consultation.

3.7 An indicative range for rewards and penalties

During the PR14 risk-based review we quickly came to the view that companies' proposals for the cost of capital were above our expectations and that they provided too little incentive for outperformance in relation to the services they delivered to

[5] The precise details of how the aggregate cap and collar operate are set out on pages 94-95 of "Final price control determination notice: policy chapter A2 – outcomes". Some ODIs were excluded from the aggregate cap and collar, in particular, those relating to ODIs compensating customers in the event that a particular scheme is not delivered.
[6] To ensure that the cap and collar were not distorting incentives against the customer interest we also allowed for the cap and collar to be amended within the next control period with our agreement if it could be clearly demonstrated, by the company and/or CCG, that the arrangement was working against the long-term interests of customers.

customers, future customers and the environment. This meant that the balance of risk and reward disproportionality focussed on the scope for financial outperformance.

We issued additional risk and reward guidance in January 2014. We suggested companies should have an ODI range of between ± 1.0 and ± 2.0% of RoRE, bearing in mind the likelihood that cost and delivery incentives will partly offset each other. We also suggested an ODI upside of more than 1.0% of RoRE. We did not expect all companies' revised ODI proposals to be completely consistent within the suggested ranges. We also recognised that the package of incentives should be consistent with evidence on affordability and related to willingness to pay (WTP) and take account of the impact of totex efficiency-sharing.

In the May 2016 Water 2020 decision document we confirmed our decision to publish early indications on the weighted average cost of capital (WACC) and outcome RoRE ranges before business plans are submitted.

To increase the power of ODIs we could set wider indications of the RoRE range for rewards and penalties than we did during PR14, i.e., greater than between ± 1.0% and ± 2.0% of RoRE for an efficient company. By setting the indication out in advance of PR19 the RoRE range is likely to have a larger impact on companies' proposals as they will have more time to develop options and engage with their customers on those options.

If we indicated a wider range, and placed more emphasis on companies achieving it, companies would still need to ensure their proposed ODI rewards and penalties were well evidenced and supported by customer engagement. We would not allow the RoRE range to override the need for all rewards and penalties to be well justified.

We would also need to consider whether the RoRE range for ODIs should be symmetric and whether we encourage companies' expected range to be symmetric, in contrast to companies' expected ranges at PR14 which involve more scope for penalties than rewards. A symmetric RoRE range with more scope for rewards than at PR14 might increase management focus on delivering the outcomes that their customers want.

To enable companies to achieve these RoRE ranges we would also need to consider our guidance on the approach to setting rewards and penalties.

3.8 Guidance on setting rewards and penalties

As part of the methodology for PR14 we provided detailed guidance on setting ODI rewards and penalties. We could revise our guidance at PR19 to encourage companies to propose more powerful ODIs in their discussions with customers, local stakeholders and CCGs.

The first step in the PR14 guidance is to consider whether a performance commitment should have a financial or a reputational ODI attached to it. We set out a methodology for this which we used to assess companies' choices in the risk-based review at PR14. The methodology involved judgments such as whether there is sufficient evidence a financial incentive is appropriate. We could revise this guidance to put a greater onus on companies considering financial ODIs for more of their performance commitments.

The PR14 methodology set out 'basic form' approaches to penalties and rewards. We asked companies to use the following general formulas:

$ODI_{penalty}$ = Incremental WTP – (incremental cost x p)

ODI_{reward} = Incremental WTP x (1–p)

Definitions

- Incremental willingness to pay (WTP) for penalties is the value foregone by customers for a given level of under-delivery. For rewards it is the value customers gain from a given level of over-delivery.
- Incremental cost for penalties is an estimate of expenditure which can be avoided by the company for the given level of under-delivery. For rewards it is an estimate of the additional expenditure needed for a given level of over-delivery.
- p = the customer share of expenditure performance (derived from the cost performance incentive).

The penalty formula ensures customers are compensated for the lower level of service provided than the company committed to. This consists of the marginal WTP the customers have lost minus the money returned to them via total expenditure (totex) efficiency cost-sharing (equal to the marginal costs multiplied by the customer share of expenditure performance, usually around 50%).

The reward formula allows companies to earn a reward equal to customers' WTP calibrated for the fact that customers have to pay a proportion 'p' (usually around

50%) of a company’s additional spending through totex efficiency-sharing. In the case of rewards set by this formula a company has an incentive to outperform its committed performance level if it can reduce its marginal costs below the marginal willingness to pay of customers for the improved level of service.

The penalty and reward formulas require companies to provide precise estimates of marginal WTP and marginal costs. In many cases such information is not easily available or there is a range of plausible values, particularly for marginal WTP. Many companies told us they found it hard to find reliable values for incremental WTP and therefore used only incremental cost in the ODI formula for some of their ODIs to compensate customers for under- or non-delivery. This means there is an element of judgment in setting rewards and penalties even when following these formulas. An UKWIR report in March 2016 considered whether simpler ODI formulas could be used and how much flexibility companies should be allowed.

We are open to considering alternative approaches to setting rewards and penalties for PR19 and we invite stakeholders’ views on this. In our customer engagement policy statement for PR19 we encouraged companies to explore alternative and complementary tools for customer engagement, such as revealed preference WTP techniques, experiments and behavioural economic insights, to validate and test results from stated preference WTP surveys, in a proportionate way. We also encouraged companies to make more use of evidence obtained through day-to-day contact with customers. These new approaches to customer engagement could be reflected in our guidance.

At PR14 one company did not use our bottom-up formulas, but instead used a top-down approach and allocated a lump sum maximum penalty across its ODIs and defined penalty ranges to calculate a unit penalty rate. An UKWIR report also considered a top-down approach to setting ODIs rates. The report looked at issues such as how the overall total amount of the incentive is justified and how the total amount could be allocated across different ODIs.

If we want to increase the power of ODIs at PR19 then allowing a top-down approach might help. The overall ODI amount could be set to meet our PR19 RoRE range for ODIs and reflect engagement with customers on where in that range total rewards and penalties should sit. The rewards and penalties could be allocated to different ODIs through customer engagement exercises. They could also be triangulated with bottom-up evidence on customers’ WTP.

Our guidance could recognise there might be reasons for setting rewards higher than customers’ stated preference WTP to encourage companies to deliver large improvements in service, which set a new standard for the future to the benefit of all customers, including future customers.

3.9 Industry-standard ODIs

In appendix 1 we discussed whether, if we adopt common performance commitments with common commitment levels for PR19, we should standardise the ODI rewards and penalties. The justification for this is that if we require companies to adopt common commitment levels, but do not harmonise the ODIs in some way, companies will have different incentives to achieve the common commitment levels. The counter-argument is that customers in different regions might place different values on the delivery of the common performance commitments.

Any industry-standard ODI we set would need to be normalised in some way to reflect the different sizes of the companies we regulate. For example, a minute of additional supply interruptions per property affects more customers for Thames Water than for Dee Valley Water and the penalty and reward rate should reflect this.

In developing industry-standard ODIs we would consult with our stakeholders and take account of the considerations about how ODI rewards and penalties could be set (discussed above in the context of companies' bespoke ODIs). If we adopted industry-standard ODIs for the common performance commitments we propose to indicate this in the methodology consultation so that companies could take account of any industry-standard ODIs when considering their other ODIs. This would be particularly important in the context of any indicative range for ODI rewards and penalties we were encouraging companies to achieve.

3.10 Increasing the proportion of ODIs with financial rewards

An approach some companies took at PR14 in response to our risk and reward guidance, and the challenge to link more of their return to stretching outperformance, was to increase the proportion of performance commitments with financial ODIs. For PR19 this could also be a way of increasing the power of ODIs as a whole.

Increasing the proportion of financial ODIs has several benefits. First, analysis of the PR14 financial ODIs shows that the rewards and penalties are concentrated on a relatively small number of performance commitments. In particular, they are concentrated on the five performance commitments we applied upper quartile targets to at PR14, namely mean zonal compliance, water quality contacts, supply interruptions, internal sewer flooding and pollution incidents. 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 measures causes companies to focus on these disproportionately. A higher proportion of performance commitments with financial ODIs might 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 could use them to diversify their performance risk across a large number of ODIs so that failure on any individual measure 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 measures 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.

We will have a role at PR19 to challenge companies if their proportion of financial ODIs looks low and is not well justified through customer engagement.

3.11 Increasing the power of ODIs through detailed design features

In some cases the power of ODIs can be increased without the overall amount of revenue attached to ODIs being increased. One example relates to deadbands. One reason for having deadbands is not to reward or penalise companies for variations in performance which are not driven by their own effort, such as variations due to weather effects. They also ensure that customers do not pay rewards for small variations in performance which do not reflect companies' efforts, but mean that customers are not compensated for small variations in performance below companies' performance commitments. Deadbands also remove the incentive on companies to improve their service performance within the deadbands. We need to consider the extent to which deadbands are appropriate for PR19 and we invite stakeholders' views on this.

A second example is the design of the penalty or reward profile. For example, some companies have 'trigger' penalties which apply as soon as the company's performance goes below the penalty deadband whereas others have 'cumulative' penalties which increase as companies go further beyond the penalty deadband towards the penalty collar. The incentive effects of these two approaches need to be weighed up as, for example, trigger penalties can give companies large incentives not to let their performance slip below the penalty deadband, but once that has happened the company has less incentive to prevent its performance from deteriorating further.

3.12 Linking service performance to the cost of equity

An alternative to increasing the power of ODIs is to supplement ODIs with a variable cost of equity. Our consultation on the approach to the cost of debt for PR19 highlighted some international regulatory developments on the cost of equity. In particular, the Essential Services Commission (ESC) of Victoria, Australia is adopting a menu-based approach to setting the cost of equity. The ESC's approach includes different levels of the cost of equity reflecting the ambition and risk in a company's business plan, and requiring companies to make a self-assessment of their plan from a menu of four options: leading, ambitious, standard and basic.

Table 4 - ESC's example of a cost of equity menu

		Water company's self-assessment			
		Leading	Ambitious	Standard	Basic
Regulator's assessment of submission	Leading	5.30%			
	Ambitious	4.70%	4.90%		
	Standard	4.10%	4.30%	4.50%	
	Basic			3.90%	4.10%

Under the ESC's menu-based approach each company will assess its own ambition and then the regulator will determine whether or not the company has accurately assessed its plan. An important component of a company's ambition is the service outcomes it is proposing for its customers and the environment and how stretching they are. If the regulator considers a company's self-assessment has overstated the level of ambition in its plan then the company is allowed a lower cost of equity than if it had correctly assessed its ambition in the first place.

A key difference between the ESC's cost of equity approach and a pure ODI approach is that the variable cost of equity approach incentivises companies to submit ambitious business plans including stretching performance commitments and efficient totex proposals. Our PR14 approach used different incentives to encourage good quality business plans, efficient totex proposals and stretching performance commitments with powerful ODIs.

In our cost of debt consultation we asked some preliminary questions to the sector about the menu-based approach to the cost of equity. We also discussed the questions with companies at a cost of debt workshop on 10 October 2016. The questions included whether it would be feasible to effectively distinguish between different levels of ambition and risk in companies' business plans. We also asked for views on how the menu-based approach to the cost of equity overlaps with other price review incentives, such as ODIs and totex menus. The consultation closed on 17 October and we are considering the responses.

A variable cost of equity, partly based on how stretching a company's performance commitments are, overlaps to some extent with ODIs. The two could work together to increase the incentives on companies to focus on delivering what matters for their customers. Companies would need to calibrate their ODIs to take account of the variable cost of equity menu choices to achieve a powerful overall incentive package related to service delivery, if we were to adopt a variable cost of equity approach.

At this stage we are not consulting on a preferred approach to setting the cost of equity for PR19. Stakeholder views in response to the cost of debt consultation and this consultation will feed into the development of our methodology for the 2019 price review.

4 Implications of more powerful ODIs

If we increase the reputational and financial power of ODIs there are several implications for the design of performance commitments and ODIs to ensure they deliver benefits to customers and are legitimate for customers. We discuss seven issues in this section.

4.1 Affordability

Some stakeholders have raised concerns that ODI rewards can lead to higher bills and that more powerful ODIs will exacerbate this. As explained above linking a higher proportion of revenue to ODIs could lead to lower bills than would otherwise be the case, while at the same time providing an incentive for frontier-shifting service performance. It does this by changing the balance of how companies earn their return towards service delivery and away from other sources of return such as outperforming the cost of capital. Linking a higher proportion of revenue to ODIs should encourage companies to delivery improved service quality within a given bill affordability constraint.

However, companies will still need to take account of vulnerability and affordability concerns. We are already encouraging companies, through our customer engagement policy statement, to improve their understanding of the needs and requirements of customers in circumstances that might make them vulnerable[7]. We are currently developing our policy on affordability for PR19 and we will consult on it in the methodology consultation.

4.2 Bill volatility and smoothing

Linking a higher proportion of revenue to in-period ODIs could increase bill volatility as performance on in-period ODIs can have impacts on company revenue from year to year. In our discussions with stakeholders on in-period ODIs we have emphasised the importance of bill smoothing to reflect customers' preferences, where appropriate. Our proposed licence modification explicitly allows for in-period ODIs to be applied in a way which smooths the impact on customers' bills. With more powerful ODIs companies will still have tools to smooth bills for their customers.

[7] To broaden the understanding of customer vulnerability in the water sector in England and Wales, and to stimulate interest and debate around the issue, we published our 'Vulnerability focus report' in February 2016.

4.3 Stretching performance commitments

If we make ODIs more powerful it becomes even more important that ODI rewards are only available for stretching levels of outperformance. More stretching performance commitments is the first theme of this consultation on the outcomes framework for PR19. We explain in appendices 1 and 5 ways in which we could make performance commitments more stretching for PR19.

4.4 Clear definitions

It will be even more important for the definitions of the performance commitments and ODIs to be clear if we make ODIs more powerful. Already during this price review period we are aware of other regulators finding their classifications coming under more challenge where they relate to ODIs with significant rewards or penalties. We have received a number of enquiries about whether exemptions can be made for particular circumstances in relation to performance commitments which have financial consequences through ODIs. We published an Information Notice in May 2016 setting out the very limited set of circumstances in which a performance commitment or ODI agreed at PR14 could be changed and the process for doing this.

For more powerful ODIs it will be important to get the definitions of performance commitments and ODIs clear in business plans. There can be very detailed aspects to performance commitment definitions, such as what exemptions and mitigating factors can be applied to performance, as well as detailed technical thresholds that need to be defined, for example, precisely when a supply interruption starts and when it ends.

In our May 2016 Water 2020 decision document we set out our decision that, by default, companies should submit their performance commitment definitions ahead of business plans for review by us. However we stated that, by exception, a company can choose not to submit a definition early if a performance commitment is new, innovative or requires extensive customer engagement, but we would subject those performance commitments to more detailed scrutiny during the price review. This greater emphasis on the clear definition of performance commitments and ODIs at PR19, compared with PR14, should enable more powerful ODIs to be attached to performance commitments.

4.5 The right targets

Another implication of more powerful ODIs is that they are likely to change companies' behaviour more and therefore we need to be comfortable that companies have proposed the right performance commitments. It will be important when companies develop their overall ODI packages that they consider the balance between the different ODIs. For example, an important area of balance is between more immediate customer-facing ODIs and asset health ODIs to ensure the company is incentivised to deliver for current and future customers. Another area is the balance between operational performance metrics and customer satisfaction, both of which matter to customers. It will be important for companies to engage with their customers and CCGs on the overall balance of their ODIs and to explain the rationale clearly in their business plans.

4.6 Good quality engagement on rewards and penalties

More powerful ODIs could lead to companies earning substantial rewards for delivering stretching outperformance or substantial penalties for poor performance. Companies will need to have carried out good quality customer engagement on their ODIs, and responded well to challenges from their CCGs, in order to justify them.

4.7 'Gated' ODIs

The use of more powerful ODIs means that there could be instances where a company earns substantial rewards on some of its ODIs even though it might have missed its commitment levels on some performance commitments. A potential solution for this is to use 'gated' ODIs where the rewards for some ODIs are contingent on the company not incurring any penalties on other ODIs i.e. there is a 'gate' of no penalties which a company has to pass through before it can access any rewards.

An example of this is Northumbrian Water's asset health measures. In the case of its water asset health measure Northumbrian Water can only earn rewards on its performance commitments 'discoloured water complaints' and 'poor water pressure' if its performance is at least 'good' on all four water asset health measures.

There are a number of potential drawbacks of 'gated' ODIs. For example, if a company was expecting to earn substantial rewards on most of its ODIs and was expecting to miss one performance commitment by a small amount it could cause the company to spend a large amount to achieve that performance commitment level even if it was inefficient to do so. In addition, if a company knew it was going to miss one performance commitment the ‘gated’ ODIs approach could result in it having no incentive to improve performance against its other performance commitments. Using a ‘gated’ ODI will also change the risk profile for a company with more chance that a company will not earn rewards. This is likely to lead to a higher cost of capital being needed to compensate investors for the higher risk they would be bearing, and higher bills for customers.

A ‘gated’ ODI could be symmetric. As well as rewards being switched off in certain circumstances of poor performance, penalties could be switched off in certain circumstances of good performance. A symmetric gated ODI might not lead to a higher cost of capital being needed to compensate investors, but it would switch off rewards and penalties in certain circumstances, which is likely to reduce the incentive effect of financial ODIs on companies to deliver the service quality their customers want.

Consultation question: More powerful outcome delivery incentives

Q7: What is your view on the options for increasing the power of reputational and financial ODIs at PR19?

5 Impact assessment on more powerful outcome delivery incentives

We want to consider the power of ODIs together with other price review incentives in the round in the methodology consultation in July 2017. For that reason, we are not consulting on any preferred option on increasing the power of ODIs at this stage. That said, we can consider the impact of our direction of travel in relation to the following:

1. increasing the reputational impact of ODIs;
2. bringing the application of ODIs closer in time to the performance that generated them; and
3. linking a higher proportion of revenue to ODIs relative to the other price review incentives.

5.1 Increasing the reputational impact of ODIs

The benefits of stronger reputational incentives are that they increases the pressure on companies to achieve or outperform their stretching performance commitments. They also provide customers with better access to information about their company's performance. Stronger reputational incentives do this without the need for financial rewards and penalties.

There are limited costs to increasing the reputational impact of ODIs as companies are already reporting their performance annually and some of this information is already captured in the sector publications such as the Discover Water dashboard. Further steps to increase the reputational impact of ODIs are likely to involve making this information more easily available with the availability of digital channels of communication making this relatively low cost. Overall we consider the benefits of stronger reputational incentives considerably outweigh the costs.

5.2 Bringing ODIs closer to the relevant time of performance

We discuss options for bringing the application of ODIs closer in time to the performance that generated them through in-period ODIs and end-of-period ODIs linked to revenue adjustments. These options have the benefits of sharpening the incentive on company management to deliver the performance commitments their customers want. They improve the accountability of companies to customers by requiring them to explain their performance more frequently and how it impacts on their bills. They also require companies to compensate their customers for poor performance more quickly.

The main drawback with these options is that they could increase bill volatility for customers. However, our proposals allow for companies to engage with their customers and CCGs to smooth the impact of in-period or revenue-based end-of-period ODIs on customer bills, when this might be necessary. The licence modification for in-period ODIs we are consulting on at the moment explicitly allows for any rewards or penalties to be spread over more than one year for bill smoothing purposes. End-of-period ODIs can be smoothed over the following price control period if necessary.

There will be some administrative costs arising from a greater use of in-period ODIs for companies and us. We propose to operate a proportionate and efficient process to ensure these costs are low, learning from the current process for the three companies with in-period ODIs in this price control period. We will consult on our proposed approach in the PR19 methodology consultation which will give our stakeholders an opportunity to influence the in-period ODI process.

5.3 Increasing the proportion of revenue linked to ODIs

The benefits of increasing the proportion of revenue linked to ODIs include that it helps focus company management on delivering what matters for customers, future customers and the environment. ODIs act as a balance to the financial incentives companies have in relation to financing and costs as part of their price controls. More powerful financial ODIs reveal information on what performance is possible, to enable customers and CCGs to challenge companies to set more stretching commitment levels for the future, which will benefit all customers. By providing investors with more upside risk from ODI rewards, for stretching levels of outperformance, we can set a lower cost of capital for companies than would otherwise be the case which leads to lower bills for customers.

There are risks from increasing the proportion of revenue linked to ODIs. In particular, it increases the need for ODI rewards only to be available for outperformance against truly stretching performance commitments. We are proposing to mitigate these risks through our proposals for making performance commitments more stretching, making performance commitments more transparent with clear definitions that allow companies to be held to account and ensuring there is good quality customer engagement on stronger ODIs.

Increasing the proportion of revenue linked to ODIs also increases the need for performance to be correctly measured and assured. Our annual assessment of water companies' information quality, including their assurance relating to their performance should mitigate this risk.

There is also a risk that a company may benefit from ODI rewards for stretching outperformance in one area, while its overall performance does not meet wider customer expectations. This can be mitigated by good quality customer engagement on the choice of performance commitments to make sure their accurately reflect customers' preferences with assurance and challenge from CCGs.