
HAFREN DYFRDWY PR19 PERFORMANCE COMMITMENT TARGET SETTING, OUTCOME DELIVERY INCENTIVES AND TABLE APP 1

Introduction

Hafren Dyfrdwy (HD) was set up on 1st July 2018 to serve customers in Wales formerly served by Dee Valley Water (DVW) and Severn Trent Water (STW). HD is currently preparing its Business Plan for the regulatory period 2020 – 2025, known as PR19. We have already reviewed and challenged the bespoke Performance Commitments (PCs) proposed by HD. Further PCs are mandated by Ofwat, including compulsory PCs with common definitions and PCs which are mandatory, but where the company can propose its own definition. In total there will be 28 PCs.

HD is required to set targets for all of these PCs. Guidance is set out in Ofwat's 'Delivering Water 2020: Our final methodology for the 2019 Price Review' and its Appendix 2 'Delivering outcomes for our customers'. As part of its Business Plan submission, the company is required to set out the evidence considered and the justification for the targets proposed.

For this report we have reviewed and challenged:

- The process used by the company to collect and weigh evidence for target-setting
- The proposed target for each PC
- The approach to ODI type and dead-bands
- The calculation of ODI financial penalty and reward
- The completion of table APP1, which summarises PCs and ODIs

We also checked on the use of the internal governance process used to assure the outcomes of this process.

Our conclusions are given below.

Key Points

1. The company followed a thorough and rational process to review PR14 PCs and define proposed bespoke PR19 PCs, consistent with the Ofwat methodology and resulting in at least one PC in each Price Control.
2. The company followed a thorough and rational process to set target levels for both bespoke and compulsory PCs and take into account:
 - a. Regulatory expectations, including the guidance that companies should aim for upper quartile performance and impose stretch
 - b. Historical performance and realistic expectations of the amount of improvement which is feasible
 - c. Comparative performance and the feasibility of achieving upper quartile performance for each PC
 - d. Customer views on willingness-to-pay and the relative priority of PCs.
 - e. Cost-benefit analysis, where relevant
3. For each PC, the company set out the rationale used to derive current and past performance, the proposed target level, incentives penalties and deadband, balancing the above factors using judgement.
4. The company applied the most stretching targets in areas which customers confirm as their highest priorities.
5. The method used for the calculation of financial ODIs complies with Ofwat's methodology. The majority of PCs are proposed to have financial penalties and rewards. The size of penalties and incentives is based as far as possible on customer willingness-to-pay.
6. Most financial ODIs are proposed to apply in-period, to provide an incentive to make steady progress. The remainder are to be assessed at the end of the AMP, mostly because they can be affected by factors outside management control, such as the weather, or to allow a rolling average to be calculated.
7. ODIs are symmetrical, the sole exception being where the target is 100% compliance, so out-performance is impossible. The company has proposed the use of dead-bands for only 4 PCs, reduced from 6 following representations from CCG and taking into account Ofwat guidance.

8. Table APP1 accurately reflects the work done on PC targets and ODIs and was completed using a rational documented procedure and ODI types and timings discussed with CCG.
9. The company has set up an internal governance process for the setting of PC targets and ODIs, and has carried out first- and second-line internal assurance.

Our Approach to the Audit

To carry out this audit we met the staff responsible for setting targets for PR19 PCs. We reviewed and challenged the overall process used to collect evidence, including the views of customers, to propose and agree the Business Plan targets. For each PC we reviewed the process followed and the reasonableness of the resulting targets.

We reviewed the approach taken to ODI penalty, reward and deadband, including the calculation of financial penalties and rewards. For the calculation of proposed financial penalty and reward, we checked the methodology used.

We reviewed the approach taken to the completion of APP1, including the establishment of the current position for HD, the back-casting and forecasting of performance and checked and commented on the assumptions made. We checked that a PDT existed for this process and reviewed the reasonableness of the procedures used. We did not carry out a detailed audit of the reported data.

Methodology

The company followed a logical process to set targets for its proposed PCs, propose ODIs and complete APP1. This had the following elements:

Regulatory Expectations

Regulatory guidance and other expectations expressed by Ofwat were taken into account for each topic.

Historical Performance

As HD is a new company it was necessary to analyse the records of DVW and STW to establish what the current and recent past performance was against each PC.

Comparative Performance

Current performance levels were compared with industry upper-quartile (UQ) performance based on published information from other companies. This is of variable extent and reliability. Ofwat's expectation is that companies should target UQ performance for each PC, but the company's view is that this is not likely to be achievable for all PCs within a financeable Final Determination for HD and customer views and cost-benefit have also been taken into account.

Customer Views

The views of customers were canvassed through focus groups. The views of the Customer Challenge Group were also established for each proposed PC and the strength of customer support was thus established for each.

Cost-Benefit Analysis

This was considered in each case, but was not judged to be an appropriate decision-making tool in every case.

Rationale for the Proposed Target Level

The rationale document explains for each PC how the above decision-making elements were taken into account, the weight given to them, the degree of stretch proposed and the judgements made to arrive at the proposed target levels. In setting targets, account has been taken of the extent to which it is realistically possible to improve performance.

Incentives and Proposed ODI

The rationale document explains the proposed incentives and penalties and the proposed approach to dead-banding for each PC.

PCs have been defined to contribute to each of the company's required outcomes, which are:

- Outstanding Experience
- A Service for Everyone
- Lowest Possible Bills
- Good to Drink
- Water Always There

- A Positive Experience
- Wastewater Safely Taken Away

There is at least one PC for each Price Control.

APP1 was completed to reflect the above. Further details are given below.

We noted that first- and second-line assurance had been completed.

Details of the methodology used for the assessment of ODI financial penalties and rewards for the appropriate PCs are given in the separate section below.

Comments on Target Setting

Water PCs

These apply to both the Powys and Wrexham areas of the company. Comments on the assessment of financial ODIs are given in a separate section below.

A1 – Water Quality Compliance (CRI)

CRI is a new DWI measure of water quality compliance for AMP7 and it has been necessary to back-cast data to assess historical performance for HD. AMP6 dosing improvements are expected to reduce turbidity and the programme of service reservoir membrane replacements to improve bacteriological quality. Water quality is a very high priority for customers and they expect 100% compliance, although the CRI measure is hard to explain.

The short period over which CRI data are available makes the assessment of UQ performance difficult, but it is assessed as CRI = 1.3. The company proposes a target of CRI = 0. Given the volatility of the measure, this represents a very stretching target. A non-financial ODI is proposed, recognising that there are limited historical data on which to base the target and that other regulatory instruments exist to apply a penalty for non-performance.

A2 – Number of Complaints About Drinking Water

The proposed measure continues the existing Powys measure and widens the scope of the Wrexham measure to include all water quality complaints, not just discolouration. This is supported by DWI and water quality is a high priority for customers. There has been a strong improvement in discolouration complaints in the

Wrexham area due to works improvements and mains flushing and further improvements across the company will be driven by an improvement programme over the next two AMPs, including flushing, catchment management, air-valve management and Chlorine management.

A clear East/West divide is seen in the UK in numbers of discolouration complaints, driven by higher Manganese concentrations in softer upland waters in the West. An analysis of historical performance for companies in the Western group indicates that forecast future frontier performance for this group equates to 317 complaints per annum for HD and this is the proposed target, putting HD in the position of 'Best of the West'.

This is a very stretching target, representing a significant improvement on the AMP6 FD position and an even greater improvement on current performance. However it reflects customers' priorities and represents the best possible performance which can be achieved with the current raw water quality. A financial in-period ODI is proposed, with penalty and reward.

A3 – Number of Lead Pipes Replaced

This PC is proposed to support Welsh Government's (WG's) policy which aims to reduce lead exposure as far as reasonable practicable. This aim is in response to the finding that there is no safe level of lead in drinking water. The current regulatory standard for lead is 10ug/l and this standard is generally achieved by dosing drinking water with Orthophosphate. It is anticipated that a standard of 5ug/l may be in place by 2030. It is considered that dosing will not be able to achieve the lower standard and that the replacement of lead pipes will be required. In addition, WG is considering transferring the ownership of all supply pipes to water undertakers.

This PC is supported by customers in focus groups and is consistent with WG objectives. The company has set a target of removing 460 lead pipes over the PR19 period at a steady rate of 92 pipes per annum. In this context, a lead communication pipe and a lead service pipe are each counted as one pipe, since customers will not necessarily replace their lead service pipe, even if the company replaces the lead communication pipe. The target of 460 pipes has been calculated from willingness-to-pay research as the number which can be replaced for the total amount customers would be willing to pay during the period, taking into account pipes also replaced on an opportunistic basis during mainlaying work.

The company aims to offer proactive lead tests and advice and will target nurseries and schools, together with known lead pipe hotspots for replacements. This PC is appropriate, supported by customers, and is consistent with WG policy. The target figure is based on customer willingness-to-pay and appropriate steps are proposed to

locate pipes for replacement. A financial end-of-AMP ODI is proposed, with penalty and reward.

B1 – Water Supply Interruptions

Interruptions to supply is a common Ofwat PC and performance will be measured in AMP7 using new compliant standards for all companies. There is little current data measured against these standards, which complicates the assessment of UQ performance. The small size of HD means that performance can be volatile, with a single large interruption having a big effect on the measure.

A constant supply is a core expectation for customers, but they do not spontaneously mention this as an issue and WTP for a reduction in the average duration of an interruption is low or very low. It is estimated that the AMP6 average performance for HD is 12.5 minutes and that, although interruptions are difficult to prevent, analysis shows that historical events could have been dealt with more quickly, reducing the duration.

Based on the limited data available, UQ performance is estimated to be in the range 5-8 minutes. A target of 9 minutes, regarded as stretching, was proposed, but following push-back from CCG, this was reduced to 8 minutes, at the upper end of the estimated range of UQ.

A financial in-period ODI is proposed, with penalty and reward.

B2 - Leakage

Leakage is a common Ofwat PC and performance will be measured in AMP7 using new compliant standards for all companies (the 'post-consistency' standards). The baseline leakage figure for 2019-20 has been calculated using the WRMP figure for the Wrexham water resource zone, plus the figure committed to in the NAV application for the Powys area. These figures were calculated on the basis of pre-consistency standards and were subsequently adjusted using the observed historical proportions of pre- and post-consistency leakage in STW to derive the 2019-20 baseline figure for HD of 13.96 Ml/d. Figures are reported as a three-year rolling average.

The Ofwat target of a 15% reduction in leakage over the PR19 period has been agreed by the company and this has been applied as a straight-line reduction, year on year, achieving the required reduction by the end of the period. The Ofwat target overrides considerations of low customer willingness-to-pay and the economic level of leakage. A financial in-period ODI is proposed, with penalty and reward.

B3 – Per-Capita Consumption

PCC is a common Ofwat PC and performance will be measured in AMP7 using new compliant standards for all companies (the 'post-consistency' standards). The baseline PCC figure for 2019-20 has been calculated as the average PCC for the period 2013-14 to 2017-18 in the (DVW) Wrexham and STW (Powys) zones, weighted according to the relative populations. This is 144.8 litres/person/day.

Customers understand the need for water efficiency, but were not asked for their views on an appropriate PCC target and consider that companies should reduce leakage before they, the customers, are asked to change their behaviour. The company therefore aims to reduce PCC to 105 l/p/d by 2065, in line with the upper bound of the range of PCC figures being discussed by Ofwat. PC targets for PR19 have been stated to reflect a straight-line reduction in PCC from the current level at 2020-21 to 105 l/p/d at 2065.

A non-financial ODI is proposed, to avoid creating a perverse incentive, where customers water-savings would generate an incentive for the company.

B4 - Resilience - Drought Risk

This is a common industry-wide Ofwat measure and Ofwat has published guidance on how it should be measured. However modelling is required to establish the risk of a supply restriction in a severe drought and this has not been completed for the Wrexham zone. The Powys zone is supplied mainly by groundwater, which is less vulnerable to drought. The company takes the view that supply restrictions are unlikely in its area and proposes a PC of zero, with a non-financial ODI.

B5 – Asset Health – Burst Mains

This is a common industry-wide Ofwat measure. As an asset-health measure the regulatory expectation is stable performance and Ofwat has not set any performance expectations. Customers trust the company to maintain its assets and have no strong views on the target performance level, since bursts do not directly affect them. When assessing historical performance, actual data has been used for 2017-18, but prior years are based on STW data, pro-rated on the length of HD mains.

Comparative data show that current HD performance is around industry UQ and a target of 298 bursts p.a is proposed, which represents stable performance at recent levels. This is not a particularly stretching target, reflecting the fact that current performance is at around UQ, and customer impact and support are low.

A financial in-period ODI is proposed, with penalty and reward.

B6 – Asset Health – Unplanned Outage

This is a common industry-wide Ofwat measure and Ofwat has published guidance on how it should be measured. However this guidance is not fully clear and it is believed that a number of companies are seeking further clarification. In the circumstances, the company has proposed a target of maintaining performance stable at the current level, which is yet to be determined in accordance with the Ofwat definition. Although the company is not yet able to report on current performance in conformity with Ofwat requirements, in practice it is believed that no treatment works breakdown in recent years has led to an actual customer outage in the Wrexham area and customers in Powys are almost all served by borehole supplies, to which this measure does not apply. A non-financial ODI is proposed.

B7 - Properties at Risk of Receiving Low Pressure

This one of the few measures raised as an unprompted concern by customers. There is a PDT for this measure. The baseline performance figure for 2019-20 was calculated based on historic recent performance in the Wrexham area (based on DVW data prorated on numbers of properties, since this was not a target for DVW in AMP6), plus the figure committed to in the AMP6 FD for Powys. This results in an estimated 2019-20 performance of 57 properties, on a post-consistency basis.

The proposed end-of-period target of 42 was set using a serviceability approach, by assessing the average performance in the best and next years in the last five, in both areas. This resulted in an end-of period target of 42 properties, a 20% reduction on the long-term average figure.

A financial in-period ODI is proposed with penalty and reward.

Wastewater PCs

These apply only to the Powys area of the company. Sewerage services in the Wrexham area will continue to be provided by the WASCs which provided these services to DVW customers. Comments on the assessment of financial ODIs are given in a separate section below.

C1 - Length of River Water Quality Improved

This is a bespoke PC, reflecting NEP obligations and quality improvements will arise from improvements at WWTWs. Definitions and targets have been developed jointly with regulators. Customers value the environment and regard this as a medium level priority, as it affects them only indirectly. As this is a new commitment there are no historical data for comparison and industry-wide comparisons are inappropriate, since each company has a different NEP programme. Analysis shows that it is cost-

beneficial to improve 21.9 km of river and this is the target. Cost-benefit analysis will also be applied to each WWTW improvement individually.

A financial in-period ODI is proposed, with penalty and reward. This will protect customers against under-delivery and incentivise the company to implement and deliver early cost-beneficial improvements which are identified. If improvement schemes prove to be non-beneficial during development, this will allow money to be returned to customers.

C2 - Hectares Managed for Biodiversity

The company has a statutory duty to comply with its biodiversity duty as set out in the Environment (Wales) Act 2016 and biodiversity proposals will also contribute to Welsh Government's well-being goals as set out in the Well-being of Future Generations (Wales) Act 2015. Customers express strong customer support for biodiversity improvements, but were concerned that affordability should be managed.

Options and proposals have been developed in conjunction with NRW, the North Wales and Montgomeryshire wildlife trusts, RSPB and neighbouring water companies and it is planned to deliver improved biodiversity on a minimum of 450 hectares of company-owned land.

A financial in-period ODI is proposed with penalty and reward.

C3 - Satisfactory Sludge Disposal

This PC has been set because Ofwat requires that there must be at least one PC in each price control, but HD has no sludge assets and transports all sludge for disposal in England by STW. The expectation from regulators and customers is full compliance with standards. Recent performance is 100% compliance and it is difficult to see how this could fail to continue.

A non-financial incentive is proposed, since there are controls in place and an RCV recovery cannot be set because HD has no sludge assets.

C4 - Treatment Works Compliance

This is a common performance commitment for all sewerage undertakers. There are 43 consented wastewater discharges and 6 clean water discharges in Powys and compliance is assessed as look-up table compliance, not individual sample compliance. There is a regulatory expectation that compliance will be 100%. Customers value the environment and expect full compliance. Recent historical performance is 100%, at the industry frontier, but a single works failure would result in a 2.3% shortfall.

The proposed target is 100%. A financial penalty-only end-of-AMP ODI is proposed, with a deadband which would allow a single works failure without penalty, recognising the small number of works involved.

E1 - Internal Sewer Flooding Incidents

This measure is common across all companies and Ofwat expect companies to set targets at the UQ, at least. There is very strong customer support for reducing internal flooding.

Analysis of current performance shows a current average performance level of 6 incidents annually, all due to misuse (such as blockages caused by disposable nappies). Two were due to repeat blockages, which might have been preventable. None were due to a lack of capacity and all of the properties on the flooding At-Risk register were added as a result of modelling, none having experienced actual flooding. From comparative analysis the company expects (normalised) UQ performance for the PR19 period to correspond to 5.3 incidents p.a.

Cost benefit analysis is not helpful in this case because the number of incidents is very small and it is difficult to identify the actions which could be taken to reduce it. Following challenge from CCG on the number of repeat incidents, the company proposes a target of 23 incidents over the five-year period (4.6 p.a.). This is better than the assessed UQ and reflects customer views of priorities.

A financial end-of-AMP ODI is proposed, with penalty and reward.

E2 - Wastewater Pollution Incidents (Category 1- 3)

This measure is common across all companies and Ofwat expect companies to set targets at the UQ, at least. There is strong customer support for reducing pollution, although not as strong as it is for reducing internal sewer flooding, and customers express low willingness to pay.

The current performance level is 7-9 incidents p.a. (all Category 3), below the AMP6 FD level of 10. Of the 7 incidents in 2017-18, 4 were due to misuse. In recent years industry-wide performance has improved significantly, resulting in the assessment that (normalised) UQ performance for HD would correspond to 1.5 – 2.0 incidents p.a. The calculation is onerous for HD because of its comparatively short total length of sewers and it is not thought feasible to achieve this level. The company has proposed a target of 32 in the five-year period. This takes the current (better than FD) level of 8 (average) and applies stretch to achieve a level of 7 per annum.

A financial end-of-AMP ODI is proposed, with penalty and reward. It is proposed that no reward would be taken if any category 1 or 2 incidents occurred in a year.

E3 - Sewer Blockages

As a bespoke asset health measure, the Ofwat expectation is for stable performance. Customers expect a moderately pro-active approach, but this is not a priority for them as it does not directly affect customer service. 2017-18 blockage data are based on actual blockages, but previous years' figures are based on pro-rating on the STW figures. Cost-benefit has not been carried out as it is difficult to value customer benefits. The proposed target is based on continuing improvement in performance at the same rate as in recent years and shows a 6% improvement from the forecast 2019-20 position. This contrasts with a generally stable picture for the industry as a whole.

A financial end-of-AMP ODI is proposed, with penalty and reward to eliminate volatility in individual years' performance.

E4 - Sewer Flooding in Extreme Storms

There is a PDT for this measure. Approximately 6.6% of Powys properties are at risk of flooding in an extreme storm (defined as having a 1 in 50 year return period) due to restrictions in sewer capacity. This number has been estimated using sewer modelling and the Ofwat definition applies to only 4 catchments in Powys, due to the Ofwat threshold of 2000 properties. These are Welshpool, Newtown, Llanidloes and Knighton. However in practice, no properties have flooded in Powys in recent years due to a lack of hydraulic capacity (all incidents having resulted from blockages caused by abuse). No case can therefore be made for investment in hydraulic capacity and the target is to hold performance stable at the current level. This is a reasonable approach.

A non-financial ODI is proposed.

E5 - Sewer Collapses

This measure is common across all companies and the Ofwat expectation is for stable performance. This is not a priority for customers as it does not directly affect customer service, but they expect the company to invest responsibly to maintain the network. There are no specific data for Powys and historical performance has been estimated by pro-rating STW collapses, based on the Powys sewer length. It is not thought appropriate to target UQ performance, but current performance is estimated to oscillate between industry average and UQ. The proposed target is therefore to maintain current performance at 4 collapses/year (equivalent to 8/1000 km).

A financial penalty and reward ODI is proposed, assessed at the end of the period, to reduce the volatility caused by annual variation in very small numbers.

Retail PCs

These apply to both the Powys and Wrexham areas of the company. Comments on the assessment of financial ODIs are given in a separate section below.

D1 – Inspiring Our Customers to Use Water Wisely

This measure is a bespoke company-specific PC aimed at contributing to the “Making a positive difference (in our communities)” outcome and is defined as the number of people who have agreed to change their behaviour as a result of HD educational activities. The company notes that it has not previously recorded or measured the impact of its education programme, nor is there any publicly available information that could be used to define the target. This PC is strongly supported by customers who see the value of educating children to use water wisely.

The rationale, taken from UKWIR research, is that on average 18% of people will change their behaviour as a result of educational engagement. During the course of AMP7, the company proposes to offer its educational programme to every primary school in its area; and has set a target of getting 3,986 people to change their behaviour by 2025. A financial ODI is proposed.

F1 – Number of Void Supply Points

This is an Ofwat mandated PC, but with the definition being bespoke to the company and is aimed at contributing *inter alia* to the “Lowest possible bills” outcome. A void property is defined as one connected for water services but which is thought to be unoccupied and therefore not billed. The PC measures the change in void properties year-on-year

A target of reducing void properties by 72 (1%) has been set for AMP7. The target is based on a balance of the costs associated with bringing these properties into charge through process improvements that do not increase costs for customers. Work is planned during the remainder of AMP6 to gain a better understanding of the issue, but at this stage the company believes that is likely to have a relatively high proportion of genuinely unoccupied voids. A combination of high deprivation and very rural areas makes it both more expensive to find void properties and more likely that they are abandoned properties, especially business properties.

A financial (rewards only) ODI is proposed.

G1 – Customer Experience Measure (C-Mex)

The customer measure of experience (CMEX) is a Common Performance Commitment being developed by Ofwat with industry collaboration. It will replace the

existing SIM and will compare companies on the quality of their customer service and measure overall customer satisfaction. Ofwat has set out the purpose and outline details of CMEX in Appendix 3 of the Final Water 2020 Methodology. A pilot is being run in 2018-19, followed by a shadow year of reporting in 2019-20. Information from these exercises will be used to finalise the methodology and inform targets and incentives.

A financial incentive with both penalties and rewards is proposed, recovered annually to ensure the incentives apply more quickly to the advantage of customers. HD is proposing to target being in the Upper Quartile (i.e. one of the top 3 performers).

G2 – Developer Experience Measure (D-Mex)

The developer measure of experience (DMEX) is a new Common Performance Commitment being developed by Ofwat through an industry working group. Ofwat has set out the purpose and outline details of CMEX in Appendix 3 of the Final Water 2020 Methodology. A pilot is being run in 2018-19, followed by a shadow year of reporting in 2019-20. Information from these exercises will be used to finalise the methodology and inform targets and incentives.

A financial incentive with both penalties and rewards is proposed, recovered annually to ensure the incentives apply more quickly to the advantage of customers. HD is proposing to target being in the Upper Quartile of performers.

G3 – Non-household Customer Experience

The retail market for non-household customers does not exist in Wales. However, Ofwat has confirmed that companies in Wales must include a performance commitment against this price control. Therefore, this is an Ofwat-mandated PC, but with the definition being bespoke to the company. The company notes that the Welsh Government and CCWater has urged it to ensure that the measure provides a way of assessing if customers are worse off compared to those in the market (in England).

The company is proposing to align the NHH experience target to the CMEX target, when finalised, based on the principle that both business and household customers should receive the same standard of service.

A financial incentive with both penalties and rewards is proposed, recovered annually to ensure the incentives apply more quickly to the advantage of customers. HD is proposing to target being in the Upper Quartile of performers.

G4 – Welsh Language Services

This measure is a bespoke company-specific PC aimed at contributing to the “A service for everyone” outcome; and is defined as maintaining 100% compliance with the Welsh Language Scheme. Compliance with the Welsh Language Scheme is monitored through an annual audit process and periodic review by the Welsh Language Commissioner.

This is proposed as a non-financial incentive. The company notes that there are already mechanisms in place through the Welsh Language Commissioner to administer penalties for non-compliance with statutory obligations.

H1 - Supporting Our Priority Service Customers During an Incident

This is an Ofwat mandated PC, but with the definition being bespoke to the company and is aimed at contributing to the “A service for all” outcome. The proposed measure is the percentage of customers in vulnerable circumstances (CIVC) who are registered on the company’s Priority Service Register that receive company support during a clean water incident.

The company is proposing a target of 100%, which is supported by expert stakeholders and the CCG. It is recognised and agreed that any deviation from 100% would be equivalent to aiming to fail customers, thereby putting them at risk.

This is proposed as a reputation only commitment. The company notes that it would not be right to gain reward for supporting customers in vulnerable circumstances, especially as a result of an incident.

H2 – Help to Pay When You Need It

This measure is a bespoke company-specific PC aimed at contributing to the “A service for everyone” outcome; and is defined as the volume of customers supported through five schemes (Social Tariff, Watersure, Water Health Checks, Matching Plus and Payment Plan Concession, with flexibility to add additional support schemes during 2020-2025), as a proportion of the customers who find their bill unaffordable. Based on customer research, approximately 11% of customers are assumed to fall into this category. The company has also proposed a thorough review during Year 3 of AMP7 so as to check that its affordability focus is still delivering desired results.

This is proposed as a reputation only commitment. The company notes that it would not be right to gain reward for supporting customers in vulnerable circumstances.

H3 – Effectiveness of the Affordability Support

This measure is a bespoke company-specific PC aimed at contributing to the “A service for everyone” outcome; and was requested by the CCG to demonstrate the longer-term effectiveness of PC H2 – Help to Pay When You Need It, discussed above. The proposed measure is defined as the percentage of struggling-to-pay customers supported through tailored schemes who continue to pay their bill 12 months after the scheme has completed.

This is proposed as a reputation only commitment. The company notes that it would not be right to gain reward for supporting customers in vulnerable circumstances.

Comments on the Setting of Financial ODIs

Non-financial ODIs are proposed for the following PCs:

- A1 – Water Quality Compliance (CRI)
- B3 – Per-Capita Consumption
- B4 - Resilience - Drought Risk
- B6 – Asset Health – Unplanned Outage
- C3 - Satisfactory Sludge Disposal
- E4 - Sewer Flooding in Extreme Storms
- G4 – Welsh Language Services
- H1 - Supporting Our Priority Service Customers During an Incident
- H2 – Help to Pay When you Need It
- H3 – Effectiveness of the Affordability Support

Financial ODIs are proposed for the following PCs:

In-period – penalty and reward:

- A2 – Number of Complaints About Drinking Water
- B2 - Leakage
- B1 – Water Supply Interruptions
- B5 – Asset Health – Burst Mains
- B7 - Properties at Risk of Receiving Low Pressure
- C1 - Length of River Water Quality Improved
- C2 - Hectares Managed for Biodiversity
- D1 – Inspiring Our Customers to Use Water Wisely
- F1 – Number of Void Supply Points
- G1 – Customer Experience Measure (C-Mex)
- G2 – Developer Experience Measure (D-Mex)
- G3 – Non-household Customer Experience

End-of-AMP – penalty and reward:

A3 – Number of Lead Pipes Replaced
E1 - Internal Sewer Flooding Incidents
E2 - Wastewater Pollution Incidents (Category 1- 3)
E3 - Sewer Blockages
E5 - Sewer Collapses

End-of-AMP – penalty only:
C4 - Treatment Works Compliance

We reviewed the methodology used to calculate the appropriate penalty and reward. We did not audit the calculation in detail. Our comments are given below.

Calculation of Financial Penalty and Reward

In order of preference, the following methods were used to assess appropriate penalties and rewards:

1. Customer valuations from willingness-to-pay research
2. Marginal cost of meeting the PC
3. Values assigned in DVW's PR14
4. STW's PR19 valuation, apportioned

The method used complied with Ofwat's methodology.

We viewed the company's calculation spreadsheet. For each PC this listed the PC, the number of customers affected and the results of willingness-to-pay (WTP) data from one DVW survey and two Powys area surveys, where available.

Where WTP data were available, the company compared various methods of triangulating between the different sets of WTP data and chose to use a weighted average based on total customer numbers, as providing the most logically balanced approach. The company also checked for outliers, in comparison with published WTP data for other companies from PR14.

Where WTP data were not available, some values were taken as the marginal cost of provision, for example the estimated cost of replacing a lead pipe. In these cases an uplift of 20% was applied, as required by Ofwat, to provide an incentive. Where neither of the above methods were available, methods 3 and 4 were used.

In some cases, metrics were modified because the WTP data did not exactly correspond to the proposed PC. Examples were;

- interruptions to supply, where the WTP question related to preventing an interruption, whereas the PC takes into account the length of the interruption
- Water quality complaints, where the previous DVW measure (for Wrexham) did not include all of the possible causes of complaint, which were included in the STW measure (for Powys).

From the above analysis WTP values were calculated, per customer, for each PC. These were then multiplied by the number of customers affected to give the total amount that customers would be willing to pay and this sum divided by two, as required for Ofwat cost-sharing. On a sample basis, we checked that the numbers calculated in the spreadsheet had been correctly entered into APP1.

PC Assessment, Symmetry and Deadband

Most financial ODIs are proposed to apply in-period, to provide an incentive to make steady progress. The remainder are to be assessed at the end of the AMP, mostly because they can be affected by factors outside management control, such as the weather, or to allow a rolling average to be calculated.

For PC C4 - Treatment Works Compliance, the target is 100% compliance, so outperformance is impossible and only a penalty is proposed. For all of the remaining financial ODIs the proposed penalty and reward sums are identical.

The company originally proposed dead-bands for six PCs. Following representations from CCG and taking into account Ofwat guidance, this was reduced to four, which are:

- Compliance Risk Index – reflecting the volatility of historical performance
- Mains Bursts – reflecting the known impact of severe weather spells
- Leakage - reflecting the leakage reduction that is actually supported by customers through the WTP research
- Treatment Works Compliance – allowing for the failure of a single works

Comments on the Completion of APP1

APP1 reflects the work on targets and ODs described above, in numbers.

Table Completion

To complete the table the following steps were taken for each PC:

Establish the current position

This requires the estimation of current performance for HD, based on the current performance for each PC in the Welsh areas of STW and the former DVW. In some cases the PC measures are familiar and in some cases they are novel; in both cases current performance has been estimated from base data, due to the boundary changes. The current position is based on 2017-18 performance data, much of which has been audited as part of the 2017-18 APR for STW and DVW.

Back-cast previous years' performance

Previous years' performance has been estimated in the same way as for current year performance. Data have been estimated as far back as is feasible and it was not possible to complete all previous years for all PCs, generally because the base data were not available (i.e. not collected at the time, spatial data not tagged to an address or postcode, or data not available from others (eg CRI figures from DWI)).

Establish PR19 base year

The base year for PR19 is 2019-20. Where there is a relevant AMP6 target, the starting performance is taken as the AMP6 FD level, or the forecast performance level, if this is better. Where there is no current relevant target, starting performance is taken as the forecast 2019-20 performance. Where the PC is volatile, a three-year average 2017-2020 is taken.

Forecast PR19 performance

Target performance is based on either:

- Achievement of estimated industry upper quartile (UQ)
- A realistically achievable rate of improvement
- Maintaining current good or acceptable performance stable

As described above, customer priorities were taken into account.

Forecast longer-term projections

These are generally based on the continuance of the proposed improvement trends and will be reviewed at the next Business Plan.

Allocation of PCs to Price Controls

This uses a common-sense approach and is uncontroversial.

Determination of ODI type and timing

This uses a clear methodology which was discussed and agreed with CCG.

Determination of ODI financial incentives and penalties and approach to deadbands

This uses a clear methodology which is consistent with Ofwat requirements, as described in the section above.

Internal Governance

The following internal governance measures are in place:

- A PDT for the completion of APP1. We confirmed that this was detailed and comprehensive. It is supported by a statement of the approach used for calculating financial ODIs, which is not in standard PDT format.
- First- and second-line assurance checks were completed
- We understand that Internal Audit have carried out 'tick-and-tie' checks on consistency between APP1 and reported past performance

Conclusions

PC Target-setting

We concluded from our review that the company had followed a thorough and rational process to set target levels for bespoke and compulsory PCs and take into account:

- Regulatory expectations, including the general guidance that companies should aim for upper quartile performance and impose stretch
- Historical performance and realistic expectations of the amount of improvement which is feasible
- Comparative performance and the feasibility of achieving upper quartile performance for each PC
- Customer and CCG views willingness-to-pay and the relative priority of PCs.
- Cost-benefit analysis, where relevant

For each PC, the company has set out the rationale used to derive current and past performance, the proposed target level, incentives, penalties and deadband, taking into account the above factors and balancing them using judgement. The company has set the most stretching targets in the areas of greatest priority to customers.

Calculation of Financial ODIs

The method used complied with Ofwat's methodology. The majority of PCs are proposed to have financial penalties and rewards.

In order of preference, the methods used to assess appropriate penalties and rewards were: 1. Customer valuations from willingness-to-pay research; 2. Marginal cost of meeting the PC; 3. Values assigned in DVW's PR14; and 4. STW's PR19 valuation, apportioned.

Most financial ODIs are proposed to apply in-period, to provide an incentive to make steady progress. The remainder are to be assessed at the end of the AMP, mostly because they can be affected by factors outside management control, such as the weather, or to allow a rolling average to be calculated.

Most ODIs are symmetrical, the sole exception being where the target is 100% compliance, so out-performance is impossible. The company has proposed the use

of dead-bands for only 4 PCs, reduced from 6 following representations from CCG and taking into account Ofwat guidance.

Completion of APP1

The company followed a rational and documented procedure to populate APP1 from the foregoing. We sense-checked numbers in APP1, but did not audit these in detail.

Internal Governance

We noted that the company had set up an internal governance process for the HD PR19 Business Plan, which includes the setting of target levels, and has carried out first- and second-line internal assurance, in addition to the third-line assurance which this report provides. We were informed that Internal Audit carried out 'tick-and-tie' checks to confirm that reported past and forecast future performance was consistent with the current performance and assumptions made.

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