

December 2019

PR19 final determinations

Thames Water – Delivering outcomes for customers additional information appendix

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1 Leakage

1.1 Introduction

This performance commitment measures leakage on the company's network. Baseline total leakage is calculated as a three year average of annual values in megalitres per day (Ml/d); however, the performance commitment level in each year is expressed as a percentage reduction from the 2019-20 three year average value.

Thames Water has higher levels of leakage than any other company in the sector on an absolute basis. It currently has a legal undertaking (under section 19 of the Water Industry Act 1991) for breaching two of its legal obligations relating to management of leakage.

1.2 Our draft determinations

In its business plan, the company proposed a leakage reduction of 20% over the 2020-25 period. At the draft determination, we considered that the company's proposal was not sufficiently stretching given its poor performance in this area relative to other companies in the sector and the desire for the company to catch up with the rest of the sector. We increased the performance commitment level stretch by 5% from a level of 20% to 25% in 2024-25. The annual levels were set at: 2020-21 = 5.0%; 2021-22 = 12.5%; 2022-23 = 17.3%; 2023-24 = 21.2%; 2024-25 = 25.0% (units: percentage reduction from 2019-20 baseline using three year average).

We intervened to increase the underperformance and outperformance rate after re-triangulation across the company's customer valuation research inputs and after removing an un-evidenced adjustment to marginal cost. The resulting underperformance rate was -£0.389m per Ml/d and the outperformance rate was £0.307m per Ml/d.

We set caps and collars to limit the upside and downside financial exposure from unexpected out- and under-performance against the measure.

1.3 Stakeholder representations

The company proposes a change to the draft determination. It proposes to retain the 20% reduction performance commitment level it submitted in its April 2019 business plan.

The company expresses its concern that our draft determination appears to single it out for tougher treatment than other companies in the sector. It states that, when leakage is viewed using alternative metrics (for example, leakage as a percent of distribution input), then its performance is not an outlier. As evidence of this it provides information showing that the company is the second worst performer after United Utilities on such a metric. The company suggests that other companies have not achieved historical leakage reductions as great as the levels proposed by it and states that, over the last eight years, no company has achieved a double-digit leakage reduction.

The company also states there are a number of factors that specifically make its leakage reduction more challenging (clay soil, age of assets, percentage of metering, percentage of joints) than for other companies.

The company accepts the draft determination outcome delivery incentive rates. However, it does not accept the draft determination collar level as it considers that this creates financial risk exposure that is too high for one measure on its own and should be reduced. It proposes that the collar should be reduced to 5% from 10%.

1.4 Our assessment and reasons

When we consider the company's proposed 20% leakage reduction relative to our expectations of its three year average actual 19-20 baseline, the company's proposal broadly aligns with its Section 19 undertaking commitment.

Thames Water achieved a 2% reduction during the 2010-15 period (based on PR09 definitions) and a 6% increase during the 2015-20 period to date (based on PR14 definitions). The company achieved its biggest reduction of 27% during the 2005-10 period (based on PR04 definitions). However, we accept this may have been aided by a large scale mains replacement programme. We consider the scale of change to be stretching but are careful about historical comparisons of achievability due to potential impact of past mains replacement funding as well as the fact that approaches to setting leakage reduction in the past have not delivered sufficient improvements in recent years. In particular, we were concerned that the Sustainable Economic Levels of Leakage (SELL) approach used previously to set leakage reduction performance commitment levels has not driven sufficient improvements in and therefore, we expected ambition in companies' proposals for PR19. Thames Water has performed poorly on leakage in 2015-19, and therefore has larger improvements to make compared to others and customers should not pay additional amounts for company to catch up in 2020-25 due to poor performance in the current period.

The company uses annual values to illustrate its claim that no company has achieved a double-digit reduction. However, when these are converted to three-year averages for consistency with PR19 performance commitment levels, three companies (Anglian Water, Severn Trent Water and Dŵr Cymru) have historically achieved double-digit reductions over a five-year time period. We also note that Portsmouth Water has achieved a 17% reduction between 2012-13 and 2018-19.

The company states it has specific challenges related to its own assets and regions. For the final determination we are stepping in to make a conditional allowance of up to £300m of enhancement expenditure for the company to improve in the performance of the London water network (see ‘Thames Water - Cost efficiency additional information appendix’ for more information on the cost enhancement allowance). We have not taken this improvement programme into account when setting the 20.4% performance commitment level and we may need to reset the company’s performance commitment level for leakage once funding gateways have been agreed. We expect leakage performance commitment levels to be stretching for all companies. Improvement in performance in recent years has been modest across the sector and has deteriorated for Thames Water.

We and numerous other bodies (e.g. [Water UK](#), [CIWEM policy position statement](#), [EU report on Good Practices on Leakage Management](#)) consider that the use of the alternative metric proposed by the company as a comparator is not appropriate, as distribution input is not constant and is impacted external events such as prolonged dry weather, which would result a misleading representation of the leakage levels. Our approach follows the PR19 methodology which states companies should set their proposed performance commitment levels and challenge themselves to achieve forecast upper quartile in relation to litres per property per day and per km of main per day or justify why not. This is because these are accepted normalised metrics used by the UK water industry.

1.5 Our final decision

We decide to broadly align the performance commitment level with the company’s Section 19 undertaking commitment as described above. Since we consider this to be stretching, we change the draft determination performance commitment levels to a 20.4% reduction in 2024-25 (when rounded to 1 decimal place, it is 20.4% compared to the company’s proposal of 20%).

We set performance commitment levels to the following values (to 1 decimal place): 2020-21 = 4.1%; 2021-22 = 10.2%; 2022-23 = 14.1%; 2023-24 = 17.4%; 2024-25 = 20.4%. Units: Percentage reduction from 2019-20 baseline using 3 year average

(%). These reductions are based on the company's three-year average 2019-20 and 2024-25 values of 714.0 and 568.0 MI/d respectively.

The company accepts the draft determination ODI rates and we retain these for final determinations.

The performance of the company has been particularly poor in recent years. There is a risk that the company will fail to deliver its 2015-2020 leakage performance commitments and could continue to do so in the 2020-25 period. We therefore consider it is proportionate to allow a collar to protect the company on this performance commitment but that, to protect Thames Water customers, the collar that will only bite at relatively poor levels of performance, noting that we are setting a tighter collar for other companies. We do not consider that this will dominate its package of performance incentives, having compared the implied P10 payments arising from this performance commitment against those of Thames Water's other performance commitments. We therefore retain the draft determination collar at -10% (meaning that underperformance payments will no longer apply when leakage levels are at or above 10% higher than its baseline 2019-20 level) in all years.

2 SEMD bespoke performance commitments

2.1 Introduction

The Security and Emergency Measures Direction (SEMD) is legislation that directs undertakers to maintain plans to provide a supply of water at all times.

Thames Water has two performance commitments for SEMD. They are: **SEMD - Securing our sites (2020-25 projects)** and **SEMD - Securing our sites (legacy projects)**. Both performance commitments relate to securing its assets and sites from hazards such as terrorism and malicious threats.

The **SEMD - Securing our sites (2020-25 projects)** performance commitment measures ‘the percentage of an agreed number of specified sites brought into compliance with SEMD requirements and assessed against a set of criteria agreed with Defra from 1 April 2020’.

The **SEMD - Securing our sites (legacy projects)** specifically relates to projects outstanding from the 2015-20 period. It measures ‘the percentage of an agreed number of specified projects brought into compliance with SEMD requirements and assessed against a set of criteria agreed with Defra’.

2.2 Our draft determinations

In its business plan, Thames Water proposed a single SEMD performance commitment.

In the draft determination we intervened to split the performance commitment into two separate performance commitments, one to cover 28 projects in the 2020-25 period for which we are proposing to provide a cost allowance, and one to cover legacy 2015-20 projects being completed in the 2020-25 period.

Because the single performance commitment that the company proposed was split in to two, we also needed to change the ODI rates and performance commitment levels:

- For the **SEMD - Securing our sites (2020-25 projects)** we intervened to change the ODI rates to £0.0403m per percentage of the programme. The performance commitment level was set to align with the delivery of the 28 schemes covered by

the 2020-25 performance commitment, profiled evenly over the last four years of the period.

- For **SEMD - Securing our sites (legacy projects)** we intervened to change the ODI rates to -£0.381m per percentage of the 2015-20 programme. The ODI is end-of-period (2024-25 only) and has no underperformance collar. We set a performance commitment level of 100% in all years to match the delivery profile provided by the company.

2.3 Stakeholder representations

In its representations, Thames Water states that our basis for including a new performance commitment for uncompleted 2015-20 'legacy sites' is misplaced [wrong] and it should be removed. The company states that although it underestimated the scope of the PR14 work due to a lack of 'knowledge or understanding of the scope required or the cost of delivery' and encountered numerous operational and governance issues within its business that contributed to the non-delivery of the performance commitment. It later, in 2018, submitted to Defra a revised set of outputs for 2015-2020 that changed the 591 outputs originally planned to 326 outputs. Further the company emphasises that the PR14 performance commitment was not to deliver 591 outputs but to deliver 100% of the SEMD advice notes.

The company subsequently proposes that all SEMD outputs to be delivered in 2020-25, including the 264 outstanding 2015-20 outputs should be considered under the original performance commitment that it proposed. The company also considers that the delivery profile should be based on actual deliverables and that basing it on Totex is not appropriate as the type and nature of work should be accounted for.

With reference to the ODI rates, the company states that the proposed underperformance rate should be updated to reflect the full 2020-25 programme which results in an underperformance rate of £-0.078m. Thames Water proposes that the underperformance rate applied is consistent with the underperformance rate that was agreed for 2015-20.

2.4 Our assessment and reasons

We consider our cost thresholds for the 2015-20 period provide sufficient expenditure for an efficient company to deliver its functions, including delivering the 591 outputs that Thames Water committed to in order to meet the obligations under SEMD. Therefore, we do not agree with the company's contention that the

consultations with Defra about the scope of SEMD work could overwrite the accountability for delivering all the 591 SEMD outputs at the costs allowed for at PR14.

Further, we consider that the ability to correctly scope the deliverables and costs for projects and to manage these effectively are essential parts of the company's operational capabilities. Therefore, the company should bear responsibility when it is unable to deliver as a consequence of poor scoping or project management. In order to hold the company to account for the delivery of the remaining 264 schemes, we consider it is necessary to have a separate performance commitment to incentivise the company to deliver the remaining 264 outputs from the original 591 PR14 outputs.

We consider that the number of outputs, rather than totex is a better way to profile the levels and the company has provided information for us to do this, which was not available at draft determination.

We consider that in order to protect customers, it is important that we recover any expenditure associated with an investment that has not been delivered which will help to provide transparency and avoid customers paying twice for the same improvement. Therefore, we consider that the approach proposed by the company does not provide customers and stakeholders with sufficient assurance that the unspent SEMD funding is used efficiently for additional SEMD activities. We calculate our delay and recovery ODIs for both SEMD performance commitments in the standard way set out in our 'Delivering outcomes for customers policy appendix'.

2.5 Our final decisions

We retain the two separate performance commitments for SEMD as set in our draft determination.

We update the definitions to reflect the revised delivery profile and summarise the improvements expected under each performance commitment to increase transparency. We change the **SEMD - Securing our sites (legacy projects)** performance commitment profile from 100% in each year (which was because these schemes should have already been delivered) to match the new profile provided by the company. We set the 28 outputs covered by the 2020-25 performance commitment: **SEMD - Securing our sites (2020-25 projects)** performance commitment, be profiled evenly over the last four years of the period.

We update the definition of **SEMD - Securing our sites (2020-25 projects)** performance commitment to make clear that the delay ODI rate should apply for each year in the 2020-25 period. We set the ODI recovery rate to -£0.453m per percentage of the programme.

The ODI rate of the **SEMD - Securing our sites (legacy projects)** performance commitment remains as calculated at draft determination except that we uplift the costs to 2017-18 prices. We set the ODI rates to: Delay: -£0.0110m; Recovery: -£0.0616m per percentage of the programme.

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