

June 2020

Reference of the PR19 final determinations: Response to Northumbrian Water's 27 May submission to the CMA

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1. Introduction

- 1.1 In this document we present a targeted reply to Northumbrian Water's 27 May submission (the '27 May submission') to the Competition and Markets Authority ('CMA'), focused on **new materials** (evidence and/or arguments), together with short references to the **key mischaracterisations** that have been made.¹ We also submit additional evidence in response to certain points made by the company. As explained in our letter of 17 June we consider it is important to provide this written reply in order to assist the CMA in its consideration of companies' submissions. In particular, having our perspective on the new materials will enable the CMA to work most effectively.
- 1.2 In the interests of brevity, we do not seek in this document to set out our answer to the very many points made with which we disagree. The CMA is already burdened with an extremely large volume of submissions and materials in this redetermination. If there are any particular respects in which we have not explained our position in sufficient detail, or where the CMA would be assisted by our response to points we have not addressed, we would be happy to provide further clarification.
- 1.3 In its 27 May submission, Northumbrian Water sets out its perspective on our response ('our 4 May response') to its statement of case.^{2 3} The Foreword claims that we have sought to present the company's plan as 'less for more', stating this is 'clearly erroneous': the company claims that its plan offers 'more for less'.⁴ This is typical of a number of **mischaracterisations** of our 4 May response by Northumbrian Water: in this example our 'less for more' refers to the company business plan's outcomes for customers and bills when compared with those in our final determination; the company's 'more for less' compares its PR19 business plan with its PR14 costs and service levels.
- 1.4 Northumbrian Water states: 'Ofwat has not set out any evidence or arguments that detract from or counter the grounds that we have advanced'.⁵ This general assertion is **so over-broad as to lack any credibility**, and certainly does not assist the CMA. It is followed by a number of points in Northumbrian Water's statement of case where it claims that we did not address their arguments in

¹ Northumbrian Water, 'PR19 CMA Redetermination', May 2020

² Ofwat, 'Response to Northumbrian Water's statement of case', May 2020

³ Northumbrian Water, 'NWL Statement of Case PR19 CMA Redetermination', April 2020

⁴ Northumbrian Water, 'PR19 CMA Redetermination', May 2020, p.3, paragraph 3

⁵ Northumbrian Water, 'PR19 CMA Redetermination', May 2020, p.4, paragraph 3

our response to the CMA. For example, the company states that its argument regarding our programme-wide efficiency challenge on the Water Industry National Environment Programme (WINEP) cost allowances is 'unchallenged' and our 'response does not address or disprove' the company's argument about our approach to setting the leakage performance commitment level.^{6 7}

- 1.5 We reject such allegations. In fact our 4 May response addressed all of the key points which the CMA will need to redetermine, **in a proportionate manner**. In the normal way, the fact that a particular company argument is not expressly dealt with should not be taken to imply our agreement with the position stated by Bristol Water. We are of course happy to assist if the CMA requires additional detail on any of the points raised by Bristol Water.
- 1.6 The CMA has published a number of **representations from third parties**, following an invitation for comments on the issues raised in the References from Ofwat and the company statements of case. These include representations from customers and representative groups, as well as from other water companies.
- 1.7 Northumbrian Water claims that 'the third party evidence to the CMA do[es] not suggest unequivocal customer and stakeholder support for Ofwat's FD19'.⁸ That is unsurprising, and uncontroversial. However, in considering how much weight to place on the different third party representations, we encourage the CMA to note any links which exist between the disputing companies and those third parties.⁹ We stress that we are in no sense alleging any kind of impropriety. Rather, that it is important for the CMA to be aware of the nature and membership of some of these bodies.
- 1.8 We note that the submissions from Citizens Advice and CCW provide strong support for our final determinations.
- 1.9 A number of representations describe the extent of customer support for the Northumbrian Water business plan, including that from Northumbrian Water's customer challenge group (CCG), called the Water Forums. We recognise the extent of challenge made by the Water Forums during the development of Northumbrian Water's business plan, and acknowledge the level of assurance

⁶ Northumbrian Water, 'PR19 CMA Redetermination', May 2020, p.66, paragraphs 305-306

⁷ Northumbrian Water, 'PR19 CMA Redetermination', May 2020, p.77, paragraph 372

⁸ Northumbrian Water, 'PR19 CMA Redetermination', May 2020, p.8, paragraph 11

⁹ For example, the chief executive of Northumbrian Water is vice-chair of the North East Local Enterprise Partnership, and Northumbrian Water co-fund Water Resources East and support Essex Chambers of Commerce through a patron relationship (through its Essex & Suffolk Water trading arm) (www.northeastlep.co.uk; <https://wre.org.uk/>; www.essexchambers.co.uk).

provided to us on the quality of the company's customer engagement and how customer views influenced the shape of the business plan, in line with our expectations of the role of CCGs for PR19. In recent weeks, we have met with the chairs and some members of the CCGs for each of the disputing companies, in order to explain our response to the respective company statement of case. In doing so, we explained where and why it was necessary for our final determinations to take account of, but vary from, customers' views, and that this was driven by our obligation to protect the interests of customers.

Duties

- 1.10 At various points in its statement of case, Northumbrian Water presents its arguments using the language of statutory duties. In our 4 May response, we provided the CMA with a summary in one place of our position on the points related to statutory duties.¹⁰ We have considered carefully whether it would assist the CMA for this submission to provide a point-by-point rebuttal on duties. However, having analysed the company's 27 May submission, we have concluded that there is nothing which merits such treatment. Notwithstanding Northumbrian Water's protestations to the contrary, the principal arguments made collapse into substantive **disagreement about judgements made** when we reached our final determination. In so far as necessary, these points are addressed substantively at the appropriate point.
- 1.11 There are several instances where Northumbrian Water more or less subtly mis-describes Ofwat's position, with the result that it can knock down the supposed position for rhetorical effect. This is unhelpful. We are sure that the CMA will look beyond these arguments, and do not address them point by point.
- 1.12 Northumbrian Water's 27 May submission seeks to introduce a new version of the argument regarding our duties, claiming our approach to a number of issues has not met the Better Regulation principles.¹¹ We are statutorily required to have regard to these principles under section 2(4) of the Water Industry Act, which in particular states that regulatory activities should be transparent, accountable, proportionate, consistent and targeted. These are, of course, all principles to which Ofwat subscribes and has adhered throughout

¹⁰ Ofwat, '[Response to Northumbrian Water's statement of case](#)', May 2020, pp.16-21, paragraphs 2.1-2.19

¹¹ Northumbrian Water, '[PR19 CMA Redetermination](#)', May 2020, pp.15-16, paragraphs 46-52 and pp.58-59, paragraphs 246-247

PR19. The arguments deployed by Northumbrian Water to support its reliance on Better Regulation principles repeat points it has made before, and have therefore already been addressed in our 4 May response. Accordingly, we invite the CMA to conclude that our decisions have been transparent, accountable, consistent, targeted and proportionate.¹²

Taking account of new information

1.13 In its statement of case Northumbrian Water set out new information (versus information available to us ahead of our final determination) in five areas: corporation tax, Kielder transfer scheme and abstraction charges, business rates overstatement, Thames Water bulk supply abstraction, Industrial Emissions Directive (IED).¹³ Tables 3.4 and 6.1 of our 4 May response set out a summary of our view of each point raised.¹⁴

1.14 Northumbrian Water's 27 May submission provides **additional new information on one of these points: IED**. We provide commentary on the company's request for costs to support compliance with IED in our accompanying 'Cross-cutting response to companies' 27 May submissions' document. We note that Northumbrian Water submitted a letter (dated 12 May 2020) addressed to CMA with its 27 May submission, copied to other parties, which set out the company's suggestion that in the interests of streamlining the issues to be considered during the redetermination, the company would be happy to explore whether the above matters might be dealt with in correspondence outside of the hearings (with the exception of IED).¹⁵ Ofwat was not included in list of copy recipients of this letter.

Risk and return

1.15 We treat points raised in Northumbrian Water's 27 May submission on the allowed return and financeability as thematic issues and address each in our

¹² As we have highlighted in our 4 May response, regulatory best practice needs to evolve to respond to changing circumstances, and so as to continue to be relevant and effective over time. Therefore the principle of consistency does not require decisions to be immutable.

¹³ Northumbrian Water, '[NWL Statement of Case PR19 CMA Redetermination](#)', April 2020, pp.166-176, chapter 9

¹⁴ Ofwat, '[Response to Northumbrian Water's statement of case](#)', May 2020, pp.64-65, Table 3.4 and p.108, Table 6.1

¹⁵ Northumbrian Water, REP012, Northumbrian Water letter to CMA – 'CMA Redetermination, Impact of Covid-19', 12 May 2020, p.3

accompanying 'Risk and return – response to companies' 27 May submissions' document.

Covid-19

1.16 We respond to Northumbrian Water's statements on Covid-19 in our accompanying 'Cross-cutting response to companies' 27 May submissions' document.

2. Costs

- 2.1 Northumbrian Water set out a number of points related to costs in its 27 May submission. Where an issue is common to those of other companies, we address it in our 'Cross-cutting response to companies' 27 May submissions' document. These include the catch-up efficiency challenge, application of frontier shift efficiency to Water Industry National Environment Programme costs, costs to meet the requirements of the Industrial Emissions Directive (IED) and the overall stretch across costs and outcomes. We address Northumbrian Water's new materials in relation to the calculation of frontier shift efficiency and real price effects in a separate Europe Economics report.¹⁶
- 2.2 In this document, we address new evidence on cost matters that is specific to Northumbrian Water. These are:
- Sewer flooding risk reduction;
 - Abberton to Hanningfield water transfer;
 - Uncertainty mechanisms for abstraction charges and business rates;
 - Frontier shift application; and
 - Real price effects.

Sewer flooding resilience scheme

- 2.3 Northumbrian Water requests an additional £86 million allowance to reduce sewer flooding risk at 7,400 properties in the North East. It argues that this expenditure is driven by increased pressures from climate change and urban creep, which will increase the risk of sewer flooding in its region over the next investment period.
- 2.4 In its 27 May response, Northumbrian Water makes the following arguments:¹⁷
- That it has included £82 million of investment in base costs to meet the common performance commitment level (PCL). In light of that, it argues, the £86 million expenditure in dispute should be funded as enhancement rather than as base costs.

¹⁶ X001, Europe Economics, 'Response to Some Key Points on Real Price Effects (RPEs) and Frontier Shift', June 2020

¹⁷ Northumbrian Water, 'PR19 CMA Redetermination', May 2020, pp.28-36, section 3.4

- That we accepted that our base allowance is insufficient to accommodate both the £82 million 'reactive investment' and the £86 million 'proactive investment' to reduce sewer flooding risk.
- That the company is facing increased rainfall volatility in the future, meaning that the period reflected by our base cost models is not a good guide to the future.

2.5 We respond to these points in paragraphs 2.6 to 2.17.

2.6 We do not consider that the £86 million expenditure should be funded as enhancement costs. We have a framework for funding companies to deliver this specific outcome: an efficient company is funded to achieve or exceed the common PCL through our totex allowance; our outcomes framework incentivises and enables companies to go beyond the PCL.

2.7 If the company considers that the £86 million expenditure is to reduce sewer flooding risk beyond the PCL (which is implied by the fact that the company accepts that our totex allowance suitably allows for their £82 million investment to achieve the PCL), then it would receive outperformance payments against this investment. Making an enhancement allowance means that customers would be paying twice for the same service. We are confident that our outcomes framework adequately enables companies to efficiently invest beyond the PCL, through adequate outperformance payments in future periods.

2.8 Northumbrian Water argues that 'Ofwat has accepted that if we are correct that £82m has been implicitly included in our base cost forecasts for base activities then there will be insufficient funding from base costs to cover the full extent'.¹⁸

2.9 What we have said, instead, is that 'If indeed Northumbrian Water included £82 million of expenditure in base costs, instead of reporting it as part of the expenditure line to "reduce flooding risk for properties", then it could well be the case that our implicit allowance does not cover this investment'.¹⁹

2.10 In other words, what we said is that our **implicit allowance** for the line "reduce flooding risk for properties" may be insufficient for the two expenditures. Not that our **total base allowance** is insufficient.

2.11 Companies have always incurred base or growth expenditure on maintaining current service levels of sewer flooding for example by adding capacity to

¹⁸ Northumbrian Water, 'PR19 CMA Redetermination', May 2020, p.11, paragraph 26

¹⁹ Ofwat, 'Response to Northumbrian Water's statement of case', May 2020, pp.55-56, paragraph 3.116

accommodate new developments, cleaning or rehabilitating sewers, and maintaining equipment such as pumping stations, that aids and improves sewer flooding performance as well as producing drainage area plans. At PR19 we moved historical enhancement expenditure to reduce sewer flooding risk into our base models, so our total base allowance for Northumbrian Water (and other companies) at PR19 includes an allowance for enhancement (estimated by the implicit allowance) on top of what is already included in base to maintain risk level of sewer flooding. Northumbrian Water details the activities included in its £82 million expenditure in Table 4 of its 27 May submission. Some of these activities appear to be normal base expenditure to maintain sewer flooding risk levels rather than improve them, and the costs of such maintenance would be included within a base allowance, before any consideration of the additional enhancement allowance.

- 2.12 The company presents new rainfall analysis on sewer flooding storm return periods and concludes that there are more frequent extreme weather events than in the past. The company does not contend that this is unique to the North East.²⁰
- 2.13 Robust evidence that the past is not a good guide to the future may be a relevant factor to consider regarding the suitability of our models to provide sufficient funding on the basis of historical costs. However, we consider that this information is not relevant for the particular case made by Northumbrian Water. This is because the company accepts that our base allowance is sufficient for it to deliver the common PCL of sewer flooding risk. The issue, therefore, is not that our base models, namely – historical costs, are not appropriate to allow the company to deliver our well calibrated PCL.
- 2.14 The issue is that the company would like additional funding for a programme that would further reduce the risk of flooding. Sewer flooding was identified as an issue of significant concern for its customers. As we explained above, the company will be able to receive outperformance payments against this investment. These payments align customers' view of benefits from reducing sewer flooding risk with the cost of enhanced protection.
- 2.15 Northumbrian Water cites climate change and urban creep as the drivers for this investment. While we accept that these factors have driven investment in the past and would drive investment in the future, we consider that at PR19 our framework, and resultant allowances, enable companies to continue to address these pressures. Northumbrian Water has relatively low rainfall and low

²⁰ Northumbrian Water, '[PR19 CMA Redetermination](#)', May 2020, p.31, paragraph 126

population growth (suggesting urban creep may be less of an issue than in areas of high growth). Further, based on the Met Office UK Climate Predictions 2009 and 2018, the North-East region is not predicted to receive atypical winter or summer rainfall compared with other UK regions over the next 80 years.^{21 22} We therefore do not consider that there is a case to treat Northumbrian Water any differently to other companies by making a cost allowance to reduce the risk of sewer flooding below the PCL in future periods.

- 2.16 In summary, the company recognises that our base allowance would allow it to deliver the common PCL – it included £82 million of investment in base costs for that purpose. It argues that the £86 million expenditure is an enhancement to the service, that is, it would reduce sewer flooding risk below the PCL. For this, the company will receive outperformance payments, and making additional cost allowance means that customers will be paying twice for the same service.
- 2.17 Any evidence that the past is not a good predictor for the future is not relevant for the specific case made by Northumbrian Water. Such evidence could be relevant if the company argued that base allowance was insufficient for to deliver the common PCL.

Essex resilience scheme (Abberton to Hanningfield water transfer)

2.18 In its 27 May submission, Northumbrian Water makes the following claims:

- That the funded scheme at Layer water treatment works (WTW) does not remove the need for the Essex resilience scheme;
- That it demonstrated that the combination of factors impacting on its raw water (including algal blooms, the quality of our raw water, reduced rainfall, population growth, demand fluctuations and the availability of third party water sources) leads to unsustainable reliance on Hanningfield reservoir; and
- That alternative sources of existing resilience are not substitutes for this scheme.

2.19 We have thoroughly reviewed the evidence that Northumbrian Water has provided in support of the Essex resilience scheme:

²¹ UK Climate Change Risk Assessment 2017 Synthesis report, Committee on Climate Change, July 2016, p.25

²² <https://www.metoffice.gov.uk/research/approach/collaboration/ukcp/land-projection-maps>

- We do not consider that the company makes a convincing case for undertaking this investment in the 2020-25 period, owing to the lack of a clear assessment of **future risk**, in particular in light of the investment we funded at Layer WTW.
- The company fails to evidence that the proposed investment is the best long term option. Northumbrian Water has not demonstrated that this investment will prevent the need for other investments at its Essex WTWs until 2045.²³

2.20 There is a clear link between the raw water deterioration risk in Abberton and the need for the pipeline to connect Abberton to Hanningfield. Northumbrian Water identified the outage at Layer WTW due to algae and turbidity problems as **the principal risk** to justify the pipeline to Hanningfield reservoir.

2.21 We have funded Northumbrian Water £22.4 million to address raw water deterioration risk at Abberton (through the implementation of appropriate solutions at Layer WTW). The company has not re-assessed the risk to drawdown levels at Hanningfield reservoir once the risk to supplies, due to poor raw water quality and outages at Layer WTW, has been largely removed.

2.22 We have previously raised concerns about the overlap between this transfer scheme and the Layer WTW dissolved air flotation (DAF) scheme in terms of mitigating a large proportion the risk to supplies due to poor raw water quality and outages.^{24,25} The company has not adequately demonstrated the need for the transfer scheme taking into consideration the completion of the DAF treatment at Layer WTW, as requested by Ofwat on several occasions.

2.23 Northumbrian Water states that outages caused by algae or other water quality deterioration issues are 'not unique to Layer WTW' and the factors impacting the raw water 'remain significant risks even once the Layer DAF works have been completed'.²⁶ However, while raw water deterioration issues may be present at other treatment works, the ones affecting Layer WTW are the most significant sources of risk in the Essex area (as evidenced by the magnitude of

²³ During the virtual site visit on 16 June 2020, Northumbrian Water reiterated that the Essex resilience scheme defers the need for investment in treatment processes at Langham, Langford and Chigwell WTWs, and the expansion of Layer WTW, until 2045. We find no evidence that demonstrates any certainty surrounding this claim. The onus has always been on the company to justify that this proposed investment is the optimum solution to carry out during the 2020-2025 period.

²⁴ Ofwat, 'Response to Northumbrian Water's statement of case', May 2020, pp.58-64

²⁵ Ofwat, 'PR19 final determinations: Northumbrian Water final determination', December 2019, p.40

²⁶ Northumbrian Water, 'PR19 CMA Redetermination', May 2020, p. 40, figure 5

system impacts caused by Layer WTW outages under algae and turbidity events).²⁷

- 2.24 Population growth, reduced rainfall and demand fluctuations, cited as factors that will affect the Essex water resource zone raw water in the future, are drivers considered to be supply-demand issues, not resilience enhancement. These drivers will have already been factored into the water resources management plan process for the current planning period (2020-2060). The Essex water resource zone is not forecasted to be in supply demand deficit over the planning period and this has clearly influenced the company's approach elsewhere in its water resources management plan.²⁸ For example, it based its decision not to pursue compulsory metering on the outcome of customer engagement as there was no supply demand driver.
- 2.25 In addition, we do not consider the company has demonstrated that the transfer scheme is the best value long term investment option compared with the list of other investments it is said to mitigate, such as new treatment processes at two WTWs and increasing the capacity of Layer WTW or potable water mains.²⁹
- 2.26 We note that the CMA has received a number of submissions from third parties expressing support for the Essex resilience scheme. Many of the third parties are not fully independent of the company due to company involvement in the running, leadership or funding of the third party.
- 2.27 Further, some third party submissions include high level assertions and erroneous assumptions. For example, Water Resources East comments that the Essex resilience scheme has been identified through the company water resources management plan process and that a robust technical approach has been followed to identify and justify the need for the scheme, including sign off with other regulators.³⁰ This transfer scheme is a discretionary investment scheme promoted through the company's PR19 business plan, as it will not increase deployable output in the Essex resource zone, and is therefore not fully supported by the water resources management planning process.³¹

²⁷ Northumbrian Water, '[PR19 CMA Redetermination](#)', May 2020, pp. 40-41, paragraphs 166-167

²⁸ Northumbrian Water, SOC515, Essex and Suffolk Water Final Water Resource Management Plan, August 2019, p.30, and p.207

²⁹ Northumbrian Water, '[PR19 CMA Redetermination](#)', May 2020, p.40, paragraph 165

³⁰ Northumbrian Water, REP010, Water Resources East submission to the CMA - Water Redeterminations 2020, p.2

³¹ Northumbrian Water, SOC515, Essex and Suffolk Water Final Water Resource Management Plan, August 2019, p.33 and p.301

Uncertainty mechanisms for abstraction charges and business rates

- 2.28 In its 27 May submission, Northumbrian Water reiterates its case that abstraction charges and business rates should be pass-through costs rather than subject to the 75:25 (customer:company) sharing rates that we allowed for in the final determinations.³²
- 2.29 We were aware that the Environment Agency intended to consult on a change in how it calculates its **abstraction licence** charges when we determined price controls. We therefore considered there is increased uncertainty around how much water companies will be charged in the period 2020-25.
- 2.30 The 75:25 cost sharing mechanism provides companies with significant protection for changes in abstraction charges while retaining some incentive for them to engage with the Environment Agency over the change in abstraction licence charges. Our final determination did however confirm we will consider claims for additional adjustments by individual companies on a case by case basis at PR24 where companies are able to demonstrate that a material change to charges, beyond prudent management control, has put them at a material disadvantage under the 75% sharing rate.³³
- 2.31 Northumbrian Water states that it pays for around 98% of the Environment Agency's abstraction charges in the North East region.³⁴ We should also note that, according to the company, the Kielder Operating Agreement accounts for c.80% of the Environment Agency's costs in the same region.³⁵
- 2.32 A 2005 National Audit Office report sets out the background and purpose of the Kielder Operating Agreement.³⁶ The agreement, which dates from privatisation, covers non-regulated services provided by Northumbrian Water to the Environment Agency which is then charged back to Northumbrian Water's regulated business through abstraction charges. The charges cover Northumbrian Water's operating and maintenance costs as well as a return on the capital investment incurred in Kielder reservoir's works and facilities – which, at a perpetual real discount rate of 7% is high by today's standards. The agreement can only be changed by agreement between Northumbrian Water

³² Northumbrian Water, '[PR19 CMA Redetermination](#)', May 2020, p.72, paragraph 345

³³ Ofwat, '[PR19 final determinations: Aligning risk and return technical appendix](#)', p.41

³⁴ Northumbrian Water, '[PR19 CMA Redetermination](#)', May 2020, p.73, paragraph 351

³⁵ Northumbrian Water, '[NWL Statement of case – PR19 CMA redetermination](#)', April 2020, p.172, paragraph 950

³⁶ National Audit Office, '[ENVIRONMENT AGENCY: Efficiency in water resource management](#)', 2005, pp.20-22

and the Environment Agency. It is therefore reasonable to consider that Northumbrian Water can control a portion of these costs in the same way that it controls other operating and maintenance costs.

2.33 We also recognised that companies have limited control over the level of **business rates** and the effect of revaluations.

2.34 We consider that the business rates uncertainty mechanism provides companies with appropriate protection against increases to business rates, recognising that some factors are outside of companies' control, while retaining some incentive for companies to fully engage with the Valuation Office Agency to minimise the change in business rates and to affect the factors that companies can influence.

2.35 While some regulators do allow a 100% pass-through of business rates costs, in its Heathrow Q6 control the CAA allowed an 80:20 business rates sharing arrangement.³⁷ It stated that it considered that 'HAL [Heathrow Airport Limited] had the ability to have some influence on rates revaluation'.³⁸ Also Ofcom does not include a true-up mechanism for BT's cumulo rates which are calculated using the same methodology as water companies' water service cumulo rates.³⁹

2.36 Northumbrian Water contests that its successful challenge of its rateable value was only due to an erroneous valuation rather than any influence or control.⁴⁰ In its third party evidence to the CMA, Severn Trent Water states that:

'...we also believe the approach to business rates needs to consider the role of incentives. As highlighted in our Draft Determination Response we think it is important that incentives are retained to reduce customer bills through the engagement with the Valuation Office Agency (thereby keeping bills low) whilst also acknowledging that to a large degree the costs are outside management control. Retaining some form of cost sharing on this item (and items with similar features

³⁷ CAA, [Economic regulation at Heathrow from April 2014: Notice of granting the licence](#), February 2014, p.175, paragraph A47

³⁸ CAA, [Economic regulation at Heathrow from April 2014: notice of the proposed licence](#), January 2014, p.172, paragraph A45

³⁹ Ofcom, [Wholesale Local Access Market Review: Statement \(Annexes 17-27\)](#), March 2018, p.140 paragraph A21.1

⁴⁰ Northumbrian Water, ['PR19 CMA Redetermination'](#), May 2020, p.73, paragraph 346

where costs are primarily outside management control) is critical to maintaining this balance.⁴¹

2.37 We therefore consider that the business rates uncertainty mechanism provides sufficient protection for companies while also protecting customers' interests.

Frontier shift application

2.38 Northumbrian Water contests our application of our 1.1% frontier shift to business rates, abstraction charges and WINEP enhancement costs.⁴² In particular, Northumbrian Water presents a new argument stating that our approach to applying frontier shift reduces its allowance by £5 million relative to its approach which applied a 1.5% frontier shift only to modelled base costs.⁴³

2.39 By contrast, our calculations suggest that our lower frontier shift of 1.1% applied to a wider range of costs results in an £18 million higher allowance than Northumbrian Water's assumption of a 1.5% frontier shift applied to only modelled base costs. Northumbrian Water has not provided supporting data for its £5 million calculation. The difference between our and Northumbrian Water's views appears to be related to whether the frontier shift adjustment should be made to 2019-20. In their statements of case, both Anglian Water and Bristol Water support the application of frontier shift from one year before the price control begins (2019-20).⁴⁴ ⁴⁵ We do not consider that Northumbrian Water is justified in suggesting frontier shift should only be applied from 2020-21 as outlined in our 'Cost efficiency – response to common issues in companies' statements of case' submission.⁴⁶

Real price effects

2.40 Energy prices are a key input cost for water companies and an input for which disputing companies have sought a real price effect allowance. Wholesale

⁴¹ Severn Trent Water, [CMA submission](#), 22 May 2020, p.7

⁴² Northumbrian Water, ['PR19 CMA Redetermination'](#), May 2020, p.74, paragraph 356

⁴³ Northumbrian Water, ['PR19 CMA Redetermination'](#), May 2020, p.14, paragraph 45

⁴⁴ Northumbrian Water, REP010, Water Resources East Submission to the CMA - Water Redeterminations 2020, p.2

⁴⁵ Bristol Water, ['PR19 Redetermination - Statement of Case'](#), April 2020 p.105, paragraph 431

⁴⁶ Ofwat, ['Cost efficiency – response to common issues in companies' statements of case'](#) p.100, paragraphs 7.59-7.61

energy prices have recently fallen,⁴⁷ due to both lower demand and lower oil prices.^{48 49} Gas price contracts are typically linked directly to the oil price, and so lower oil prices results in lower gas prices. As gas-fired generation is still regularly the marginal generation technology in Great Britain, this translates to lower wholesale electricity prices. New gas plants are being built,⁵⁰ and as coal generation is phased out,⁵¹ gas is likely to be the marginal thermal fuel in the merit order for the next few years.

2.41 Northumbrian Water states that 'there has not been a strong link between oil prices and electricity prices for some time',⁵² and provides new evidence with a new chart comparing the movement of Department for Business, Energy and Industrial Strategy (BEIS) oil and electricity price indices over time.⁵³ We consider this chart to be misleading (and inconsistent with the fundamentals of the electricity wholesale market set out in the previous paragraph), as it showcases the volatility of electricity and oil prices, rather than the correlation between the two. We have compared electricity and oil price data using several metrics (including those used by Northumbrian Water in table 2.1) and find a statistically significant positive correlation that corroborates recent academic research on the relationship between oil and natural gas prices.^{54 55 56}

2.42 As such, if the CMA revisits the case for an energy real price effect allowance, it should take into consideration the recent movements in oil prices together with the likely impacts of Covid-19 on UK energy prices.⁵⁷ Despite the mischaracterisation by Northumbrian Water, we provided the CMA with global crude oil data to illustrate the potential scope for an energy real price effect

⁴⁷ May 2020 wholesale prices were around £20/MWh lower than in May 2019, for example see [Nord Pool Group's power exchange data](#).

⁴⁸ See for example, the Electricity System Operators [summary of demand changes](#) due to Covid-19.

⁴⁹ See for example, [Financial Times data for WTI Crude Oil](#).

⁵⁰ For example, [Keadby 2 in North Lincolnshire](#), due to begin generating in 2022.

⁵¹ Coal generation has fallen significantly in recent years, and [full phase out](#) is expected to be complete in 2024.

⁵² Northumbrian Water, '[PR19 CMA Redetermination](#)', May 2020, p.62, paragraph 275

⁵³ Northumbrian Water, '[PR19 CMA Redetermination](#)', May 2020, p.63, Figure 13

⁵⁴ We have tested BEIS crude oil and heavy fuel oil price data to BEIS industrial electricity prices (2001 – 2018), and BEIS petrol pump price data to APX day-ahead spot wholesale prices (2009 – 2020).

⁵⁵ N001 Asche, F., Oglend A. and Osmundsen, P. (2017), 'Modeling UK Natural Gas Prices when Gas Prices Periodically Decouple from the Oil Price', *The Energy Journal*; Vol. 38, Iss. 2, doi: 10.5547/01956574.38.2.fasc.

⁵⁶ N002 Frydenberg, S. et al. (2014), 'Long-term relationships between electricity and oil, gas and coal future prices-evidence from Nordic countries, Continental Europe and the United Kingdom', *OPEC Energy Review*; Vol. 38, Issue 2, p. 216-242

⁵⁷ X001, Europe Economics, 'Response to Some Key Points on Real Price Effects (RPEs) and Frontier Shift', June 2020, pp. 17-19.

allowance, *should* the CMA choose to allow one. We consider movements in global oil prices are indeed relevant to the UK water industry's spend on energy, which is consistent with Anglian Water's view that '[g]oing forward, the future direction in UK energy prices depends mainly on global oil prices'.⁵⁸ However, as at final determination, we continue to consider that no real price effects allowance is required for energy.

Table 2.1 Spearman rho test – Growth correlation with BEIS industrial electricity prices⁵⁹

	2001 – 2018	Statistically significant?
BEIS crude oil acquired by refineries	0.47	Yes, at the 0.05 level.
IMF crude oil (petroleum) prices	0.412	Yes, at the 0.05 level
Spearman critical values (n = 19)		
$\alpha = 0.05$		0.391
$\alpha = 0.10$		0.309

Source: Ofwat analysis of BEIS industrial energy prices,⁶⁰ BEIS monthly and annual prices of road fuels and petroleum products and IMF commodity prices^{61 62}

Table 2.2 Spearman rho test – Growth correlation with APX Power UK spot index and APX Power UK baseload fixing spot index⁶³

	APX Power UK spot index		APX Power UK baseload fixing spot index	
	2010 – 2020	Statistically significant?	2010 – 2020	Statistically significant?
BEIS crude oil acquired by refineries ⁶⁴	0.730	Yes, at the 0.05 level.	0.633	Yes, at the 0.05 level.
IMF crude oil (petroleum) prices ⁶⁵	0.734	Yes, at the 0.05 level.	0.658	Yes, at the 0.05 level.
Spearman critical values (n = 11)				
$\alpha = 0.05$				0.427
$\alpha = 0.10$				0.536

⁵⁸ Anglian Water, 'PR19 Appointee Data Tables Commentary', p.82

⁵⁹ Note that 2020 outturn data is not available for the BEIS industrial electricity prices index.

⁶⁰ BEIS, [Industrial energy prices](#), 26 March 2020, Table 3.3.1

⁶¹ BEIS, [Monthly and annual prices of road fuels and petroleum products](#), 28 May 2020, Table 4.1.1.

⁶² IMF, [Commodity prices](#), 11 May 2020

⁶³ Note that AXP data is only available from 2009 onwards.

⁶⁴ Up to and including prices at 30 April 2020.

⁶⁵ Up to and including prices at 30 April 2020.

Source: Ofwat analysis of APX power UK spot index,⁶⁶ BEIS monthly and annual prices of road fuels and petroleum products and IMF commodity prices.^{67 68}

Other new issues raised on costs

2.43 Northumbrian Water also raises two new points on the stretch on costs.

2.44 Firstly Northumbrian Water suggests that the efficiency challenge on its operating expenditure is greater than the real unit operating expenditure reduction achieved by significant structural or regulatory changes.⁶⁹ Our base cost challenge is only 0.7% compared to historical base costs, and 2.1% compared to the company's business plan.⁷⁰ Northumbrian Water incorrectly compares five year reductions compared to historic operating expenditure and two year reductions between 2018-19 and 2020-21 with sustained annual changes achieved by significant structural or regulatory changes. Northumbrian Water focuses on changes in operating expenditure but does not comment on changes in capital maintenance.

2.45 Second, Northumbrian Water suggests that there are downside risks from adverse severe weather.⁷¹ Our cost baselines are based on historical expenditure over 2011-2019. This period covers a number of extreme weather events as mentioned by Northumbrian Water, such as the Beast from the East and unusually hot and dry summers. Any additional costs incurred by companies in relation to these events will therefore be included in our cost baselines, and so these downside risks are already reflected in our base costs allowances. Also, the additional costs of £3.8 million in 2018 are small compared to its total operating expenditure of around £320 million per year.^{72 73}

⁶⁶ Refinitiv EIKON, 1 June 2020

⁶⁷ BEIS, [Monthly and annual prices of road fuels and petroleum products](#), 28 May 2020, Table 4.1.1

⁶⁸ IMF, [Commodity prices](#), 11 May 2020

⁶⁹ Northumbrian Water, '[PR19 CMA Redetermination](#)', May 2020, pp.111-113, paragraphs 527 to 533

⁷⁰ Ofwat, '[Reference of the PR19 final determinations: Introduction and overall stretch on costs and outcomes – response to cross-cutting issues in companies' statements of case](#)', May 2020, Table 5.3.

⁷¹ Northumbrian Water, '[PR19 CMA Redetermination](#)', May 2020, pp.113-114, paragraphs 534 to 538

⁷² Northumbrian Water, '[PR19 CMA Redetermination](#)', May 2020, p.114, table 30

⁷³ Northumbrian Water, '[PR19 CMA Redetermination](#)', May 2020, p.112, figure 26

3. Outcomes

- 3.1 In its 27 May submission, Northumbrian Water provides new arguments in three key areas and we provide brief comments on these below.

Expected outcome delivery incentive (ODI) RoRE

- 3.2 Northumbrian Water has provided new analysis based on ten common performance commitments. It forecasts expected performance will lead to net underperformance penalties of between -£11 million and -£22 million.⁷⁴ However, this expected underperformance is driven by its expectations on unplanned outage. Northumbrian Water's estimates for its expected ODI payment on this metric are between -£15.8 million and -£26.1 million.⁷⁵ Without unplanned outage Northumbrian Water has a positive expectation of net ODI payments.
- 3.3 Unplanned outage measures the unexpected lost capacity of treatment works and is in addition to any loss of treatment capacity from planned maintenance. Northumbrian Water's forecasts of underperformance payments would arise from an average unplanned outage of between 6.2% and 7.4% across the five year period 2020-25. This is significantly worse performance than the median industry performance of 2.0% in 2018-19. The range of expected average performance is only slightly better than its 2018-19 performance of 7.9%. We consider that an average treatment capacity of more than 6% being unexpectedly lost, indicates poor asset health and a lack of resilience. It does not reflect an efficient company. Northumbrian Water has provided no evidence of company specific factors that it faces different challenges to other companies. Its 2024-25 performance commitment level of 2.3%, is still worse than the industry median performance in 2018-19.

ODI sharing threshold

- 3.4 Northumbrian Water states there is confusion about our policy objectives for the ODI sharing threshold. It implies that the threshold was initially linked to bill smoothing, rather than to helping limit the amount of outperformance payments

⁷⁴ Northumbrian Water, 'PR19 CMA Redetermination', May 2020, p.109, paragraph 511.

⁷⁵ *ibid*

that consumers paid for a single performance commitment. It also suggests that the expectation that companies can deal with bill smoothing by deferring ODI payments is new.⁷⁶ These views may have arisen from viewing the company specific feedback we gave the company following our initial assessment of plans (IAP) in isolation.⁷⁷ However, it is clear from our practice in the 2015-20 period,⁷⁸ the methodology and draft determination documents that we have a consistent approach.

- 3.5 Our PR19 methodology requested companies consider how to protect customers from unexpectedly high ODI payments.⁷⁹ We separately said that for in-period ODIs companies should explain how they propose to manage bill volatility over the price control period.⁸⁰
- 3.6 Northumbrian Water incorrectly reports that we set out that the purpose of the ODI sharing threshold 'was to protect customer bills from increasing significantly'.⁸¹ These words are not in our documents. In our initial assessment of plans we found that the majority of companies, including Northumbrian Water, had not provided evidence that they had considered 'protecting customers in case payments turn out to be much larger than expected'.⁸² We proposed that companies share outperformance beyond 3% of RoRE.
- 3.7 We stated the expectation that companies would defer ODI payments in our draft determination.⁸³ Separately we clarified that the 3% threshold should be on a gross basis.⁸⁴
- 3.8 In our final determination we clarified the existing practice of deferring ODI payments should be considered where net payments exceed 1% and in doing so made it clear that this could be to mitigate both company cashflow and bill volatility.⁸⁵ This was a change in emphasis as before we had only focused on bill volatility.

⁷⁶ Northumbrian Water, '[PR19 CMA Redetermination](#)', May 2020, p.82

⁷⁷ Ofwat, [Northumbrian Water: Delivering outcomes for customers detailed actions](#), January 2019, p.4

⁷⁸ For instance see discussion of deferring ODI payments in Ofwat, [Final determinations of in-period ODIs for 2018](#), December 2018, p.10 although the same policy applied in the previous two years.

⁷⁹ Ofwat, [Appendix 2, PR19 methodology](#), December 2017, p.77

⁸⁰ *Ibid*, p.80

⁸¹ Northumbrian Water, '[PR19 CMA Redetermination](#)', May 2020, p.82, paragraph 401

⁸² Ofwat, [Technical appendix 1: Delivering outcomes for customers](#), January 2019, pp.21

⁸³ Ofwat, [PR19 draft determination, Delivering Outcomes for customers policy appendix](#), July 2019, p.60

⁸⁴ *ibid*, p.116

⁸⁵ Ofwat, [PR19 final determinations: Policy summary](#), p.59.

3.9 The way that the company summarises the six points in its response is helpful. However, the company is wrong to suggest that we consider there is little difference between a gross and a net cap.⁸⁶ We consider that a gross cap will provide more appropriate incentives for companies and is therefore a targeted approach. In addition, having bespoke approaches for individual companies complicates the regulatory framework and so should be avoided unless there is a clear benefit.

Leakage

3.10 We do not understand Northumbrian Water's contention that we have 'unfairly' changed the definition for leakage.⁸⁷ We developed a consistent and transparent approach to leakage in collaboration with companies including Northumbrian Water. In our final methodology we set out the measure was to be on a three year average and the baseline should be the latest performance. Our clear intention was to 'ensure that the performance commitment, reported performance and the associated ODI payments relate to actual performance changes and not to changes in methodology or data quality.'⁸⁸

3.11 Northumbrian Water continues to propose comparing leakage on the new PR19 methodology to a baseline based on PR14 performance commitment levels that were set on a company specific methodology. However, during the PR19 process it was unable to report in full compliance with the new reporting requirements. The impact this can have on the reported estimate of leakage is illustrated in table 3.1.

Table 3.1 Comparison of 2018-19 leakage figures based on different methodologies.

⁸⁶ Northumbrian Water, 'PR19 CMA Redetermination', May 2020, p.82, paragraph 406

⁸⁷ Northumbrian Water, 'PR19 CMA Redetermination', May 2020, p.76, paragraph 368

⁸⁸ Ofwat, [Appendix 2, PR19 methodology](#), December 2017, p.60

Region/leakage methodology	September 2018 forecast (MI/d)	July 2019 actual (MI/d)	September 2019 actual (MI/d)
Southern - old method	66.0	64.2	-
Southern - new method	62.5	63.1	60.8
Northern - old method	137.0	136.3	-
Northern - new method	138.5	131.0	134.7

Source: Northumbrian Water 6 June 2020 letter to CMA, 2019 Annual performance report and September 2019 response from the company to an Ofwat query^{89 90}

- 3.12 The table shows that actual leakage in 2018-19, reported in July 2019, is slightly improved in both north and south regions compared to the September 2018 forecast, based on the old fixed methodology. However, data reported in July 2019 using the new methodology shows an increase in leakage for its southern region and a much more dramatic fall in leakage in the northern region. Clearly the changes in leakage reported under the new methodology are due to changing compliance and not to actual performance. Table 3.1 also shows revised data that the company reported in September 2019. These are more in line with the movements reported using the old methodology but it has stated that it expects further revisions until full compliance in April 2020.⁹¹
- 3.13 The CMA will have more information available, including actual performance for 2019-20. If Northumbrian Water is compliant with the new leakage methodology, the CMA should be in a position to convert the PR14 performance commitment levels on a consistent basis to the new methodology. If the CMA decides to revisit Northumbrian Water's leakage performance commitment levels, we suggest that it continues to define the performance commitment in the same way as other companies. Consistent performance commitments will aid transparency and allow comparisons to be made across the industry.
- 3.14 Northumbrian Water wrote to the CMA on 6 June contending we made an unambiguous error in our computation of leakage performance commitments levels in its southern region that we should correct. The explanation is clearer than that provided to us in its letter to us in March 2020. We hope to respond to the company shortly, with the help of this clearer explanation, and we will copy the CMA into our response.

⁸⁹ Northumbrian Water, [Annual Performance Report](#), July 2019, pp.46-7 and shadow reported data in table 3S.

⁹⁰ Northumbrian Water, N001 – Northumbrian Water Leakage Query Response, September 2019, p.1

⁹¹ Northumbrian Water, N001 – Northumbrian Water Leakage Query Response, September 2019, p.3

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