

Representations: Cost assessment

Document Reference: J003

This document contains U UW's representations on the Draft Determinations of the slow track and significant scrutiny water companies relating to cost assessment.

United Utilities Water Limited



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Executive Summary

We have reviewed Ofwat’s updated approach to cost assessment as well as the information provided alongside the Draft Determinations of the slow track and significant scrutiny companies. This document sets out our response to changes or issues relating to Ofwat’s Draft Determination for the slow track and significant scrutiny companies in relation to cost assessment. Section 1 covers issues in the Wholesale price controls and section 2 covers Retail. Section 4 contains the supporting narrative for our updated business plan table submission contained within ‘J003b – Cost tables’.

1 Wholesale

We welcome that Ofwat has updated (or signalled its intent to update) some of its approaches to cost assessment, notably the treatment of the income offset and diversions income, as well as the allowance for some real price effects within Wholesale botex - even though the net frontier shift remains significantly more stretching than we believe is appropriate. Whilst there have been some clear improvements to the approach, within the information contained within the July Determinations there remain some areas of concern.

This document primarily addresses new issues that have arisen and, unless stated, does not supersede those that we raised as part of our own draft determination response in May. Our response on cost assessment can be divided into four broad categories and we structure the document as follows:

- Section 1.1 assesses the changes that Ofwat’s has made in the approach to assessing Developer contributions and Diversions within the July Determinations, specifically the issues caused by the capping of the income offset and the misalignment of diversions expenditure and incomes in our Draft Determination,
- Section 1.2 assesses the impact of Ofwat’s revised approach to econometric modelling within cost assessment, looking at the proposition to change Bioresources and the change to the net frontier shift,
- Section 1.3 updates some key issues in relation to our Draft Determination response for cost adjustment claims, where additional information provided within the July Determinations has now clarified our position and,
- Section 1.4 summarises three specific areas where our reviews have identified calculation or methodology errors within Ofwat’s approach to deriving company expenditure baselines and provides solutions where appropriate so that they can be corrected in time for the final determinations.

1.1 Developer contributions & Diversions

We tentatively support the changes that Ofwat has made within the slow track and significant scrutiny Draft Determinations (DD) concerning the calculation and application of grants and contributions when deriving net cost allowances for the wholesale controls. We note the following changes to the approach adopted for the fast track determinations:

- **Water New Developments/Income offset:** Ofwat has utilised company recovery rates rather than applying an industry average recovery rate where the income offset was

capped so the net infrastructure charge cannot be negative. Allowing the income offset to exceed the infrastructure charge (producing a negative infrastructure charge) will enable companies to maintain the balance of charges between developers and customers in line with current charging structures.

- **Diversions income:** Ofwat has acknowledged the difference between diversions that are inside or outside the scope of section 185 (s185) of the Water Industry Act 1991 and therefore whether the revenues should be considered within the price control. Correct allocation between price control and non-price control revenues will prevent any cost/volume volatility from non-s185 diversions unduly affecting customer bills.
- **Diversions gross cost:** Ofwat has acknowledged, “*Our cost model does not allow us to project major jumps in diversions expenditure*” and is requiring companies to provide historic and forecast cost for the three different types of diversion activity undertaken. We welcome the data request from Ofwat; it will enable better visibility of both the driving force behind the diversion request as well as the recovery rates, particularly diversions undertaken through the New Roads and Street Works Act 1991. Our cost adjustment claim for diversions is still required and utilising this information should enable Ofwat to calculate more accurately the implicit allowance to ensure an efficient allowance for diversions gross costs, reflective of the work undertaken (as set out in our cost adjustment claim DD03d, as part of our fast track draft determination response).

Whilst we are supportive of the underlying method and reasoning behind each of the changes noted above, we cannot conclusively confirm that all previously raised issues with grants and contributions have been resolved. We are unable to comment on whether the revised process results in an appropriate assessment for both grants and contributions and the related costs - in particular, the assessment of costs for diversions remains unclear (again, we note the ongoing need for the diversions cost adjustment claim set out in response to our fast track DD, in document DD03d). We are also unclear as to the impact on PAYG rates in the event of Ofwat resolving issues with grants and contribution, and hence whether that results in a financeable level of overall revenue – we have discussed this issue further within our slow track DD response document ‘*J004 Risk & Return*’.

In summary, United Utilities proposes that Ofwat:

- Retains its July DD proposal to use company recovery rates in calculating Water New Development grants and contributions.
- Retains its July DD proposal to account for non-s185 diversions outside of price control grants and contributions to prevent customer bill volatility.
- Adjusts botex allowances (via our cost adjustment claim) to account for diversions expenditure not covered by the models.

1.1.1 Treatment of diversions

Ofwat has identified two key issues with its approach to assessing diversions income and expenditure whereby (Ofwat, 2019 p. 16):

- *Its cost model does not allow us to project major jumps in diversions expenditure and,*
- *The expenditure is relatively unpredictable.*

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The proposed solutions are to either:

1. Retain the approach applied to fast track companies' draft determinations.
2. Set non-section 185 diversions income outside of the price control.

We respond to this appendix more thoroughly within 'J008 – Developer services' but given the significant implications on cost assessment of this issue, we respond here also.

Given these two options, we agree that Ofwat should adopt option 2, as retaining option 1 would lead to a significant financial risk, which is outside of management control, being included within the price control. The requestor accepts the costs of a diversion and therefore it is only right that the financial risk should also sit with them and not customers or the company.

Whilst option 2 would address the issue of (income) risk allocation, it does not address the two issues that Ofwat cite concerning the inability of botex models to project significant changes in expenditure requirements. On the conference call of 16 August, Ofwat indicated that it might deduct diversions costs from modelled base totex. This would significantly harm the ability of U UW to recover reasonable costs, as it has significant additional projected diversions (due, for example, to the expected requirements of HS2) compared with the "implicit allowance" within totex models. Ofwat must not simply assume that it is reasonable to deduct forecast diversions expenditure from its modelled botex assessment, in an attempt to derive a totex baseline excluding diversions. We highlighted in our DD cost assessment response document (UU_DD03, 2019 p. 12) two possible approaches that Ofwat could adopt to correct for the inconsistencies between modelled botex and company business plan diversions income. In this document, we stated that Ofwat could either:

- a) deduct the implicit allowances from gross botex and assess diversions independently (using consistent assumptions for cost and income) for all companies, or
- b) add the difference between the implicit allowance and business plan cost, £90.11m of gross expenditure for United Utilities (as set out in our cost adjustment claim, in response to our fast track DD), to the baselines for the network plus price controls.

Either one of these approaches is capable of correcting Ofwat's observed issues, and provided that one of them is implemented, we are (relatively) indifferent between either approach, as in both cases gross cost and income assumptions (and the impact on overall assumed totex) will be agreeable. The additional information that Ofwat (in the developer services data table) has sought should be capable of supporting either one of these approaches with the only difference being that option (a) would adjust all company totex allowances, whereas option (b) would only adjust U UW totex allowances unless Ofwat were to decide that this required a "two-sided" adjustment to be made.

1.2 Ofwat's revised approach to cost assessment

One of the most significant changes compared to the fast track draft determinations has been Ofwat's approach to cost assessment. Most aspects of the derivation of totex allowances have seen some form of adjustment, which has significantly increased the amount that companies have had to review. Even if the adjustments have been minor or immaterial, any change will necessitate companies having to conduct a full review of the revised approach to ensure that it is still appropriate or that any cost adjustment claims that have been prepared/submitted are still appropriate. Whilst we do support activities that attempt to obtain a more accurate and

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reflective allowance, we are concerned at the impact on prior representations, no matter how well evidenced, when these are presented relative to previous versions of Ofwat’s models. We therefore urge Ofwat either to:

- reconsider any aspiration to adjust the totex allowances from this current position, other than for issue that apply symmetrically to all companies (i.e. reductions in the net frontier shift), or for company specific reasons (e.g. special cost factors); or
- ensure that company representations (such as cost adjustment claims) are not disadvantaged as a result of this change.

Within this section we address three of the most significant changes to cost assessment methodology; the change to modelling enhancements, the potential for a change to Bioresources allowances and the allowance of a real price effect (RPE) for labour costs.

1.2.1 Revised approach to botex+ modelling and enhancement totex

Ofwat has revised its approach to assessing enhancement expenditure by making use of only forward looking information in order to model on a totex basis (as historic information is not available). Whilst there are obvious risks associated with only using forecast data that has not been subject to as much scrutiny, Ofwat’s queries since the submission should have eliminated the most significant errors. It is also unclear how much catch up efficiency, further productivity improvements and real price effects are accounted for within forward-looking models, which has knock on implications for the way in which an appropriate efficiency challenge is applied.

In our DD response, we highlighted that we account for our lead pipe replacements as opex (IRE) rather than capex (which is the case for most other companies) and as a result, we required an adjustment to the modelling process in order to make the appropriate allowance within the baseline. A by-product of Ofwat converting to totex enhancement models is that now it can assess this expenditure in line with other companies’ capex and so we no longer have any concerns regarding the approach to making the allowances for this enhancement. We would however highlight that the information contained within the July feeder models has not been updated for the revised WS2 provided alongside our fast track DD response, but accept that this may simply be a timing issue. Updating for this revised table will increase the allowance for lead pipe replacements by £2.8m to account for the additional replacements associated with our performance commitment.

We do not have any conceptual issue with the move to totex enhancement modelling or including growth expenditures within base models on the condition that allowances are not materially impacted due to abnormalities within the modelling (e.g. unduly benefitting/penalising companies). Our analysis shows that the current modelling changes by Ofwat have been largely immaterial for UUW but we do have concerns that some of the changes may not have had enough time or information to develop a sufficiently robust approach e.g. opex enhancement implicit allowance calculations. We would therefore advise that Ofwat should proceed with caution when implementing such changes within the final determinations.

The only material concern remaining relates to the assessment of diversions gross cost, as set out above in section 1.1.1.

1.2.2 Consideration of a stronger efficiency challenge for the bioresources controls

We have reflected on Ofwat’s comments within the ‘Securing cost efficiency technical appendix’, which states that for

“final determinations [Ofwat] will consider applying a separate catch-up efficiency challenges to each of the wholesale wastewater controls – bioresources and wastewater network plus. [Ofwat] will also consider using the bioresources models alone to set the bioresources controls” (Ofwat, 2019 p. 28)

Having better understood Ofwat’s concerns, we have reviewed the various options to address them, and believe that there is a better way to achieve the same objectives, in a way that also avoids the weaknesses with Ofwat’s proposed approach. We hope that Ofwat will agree that our proposal provides a better basis for assessing Bioresources costs.

In summary, **we do not believe that applying a separate catch-up efficiency challenge or radically changing the modelling approach is appropriate nor required. Instead, Ofwat should adjust the percentage of Wholesale Wastewater expenditure allocated to Bioresources based on each company forecast, consistent with its approach to Water Resources.** We explain the advantages of Ofwat adopting this approach below.

First of all, it is important not to disassociate the individual cost allowances for the two wastewater controls as it risks drawing false conclusions. In Wholesale Wastewater, Ofwat’s slow track DD efficient modelled base costs allow for c£1.3bn (or 8%) less than proposed in company business plans illustrating that in total, Ofwat has indeed set stretching baselines for companies.

Ofwat has observed that one control (Bioresources) *“does not provide a sufficiently strong efficiency challenge”* (Ofwat, 2019 p. 28) compared to the business plans. However, the issue here is not simply the efficiency applied to the Bioresources control, it is the allocation of overall assessed wastewater costs (which, overall, is already challenging) between bioresources and wastewater network plus. Ofwat’s proposed solution inherently ignores that allocation issue, which effectively means that the other control (wastewater network plus) must therefore conversely be too stretching. Applying a Bioresources specific challenge would reduce the industry allowance by a further £439m¹, taking the total gap to company business plans to almost £1.8bn (or 10%), which is beyond Ofwat’s assessment of overall efficient wastewater costs. We understand the cause of Ofwat’s concern, especially in a price control with no customer protection for totex. We also agree that it is important that expenditure baselines are set such they that do not afford any undue windfall gain because of unreasonable modelling assumptions.

Ofwat’s current modelling approach utilises a suite of aggregate and granular models, with Ofwat noting that the use of

“aggregate models will allow a comparison of costs that internalise inherent choices and trade-offs across the value chain, and is less susceptible to misallocations of costs across services” (Ofwat, 2018 p. 13).

¹ Applying the UQ challenge stated within FM_WWW2_ST_DD whilst maintaining WwN+ allowances in line with those in the slow track draft determination FM_WWW4_ST_DD.

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In section 1.2.2 of our September business plan document S6002, we also addressed the relative merits of aggregated and disaggregated modelling, specifically highlighting the issue of substitution effects across value chains due to differing (yet efficient) asset configurations.

“Companies make decisions on the locations of assets and what part of the value chain to undertake work in response to conditions within their operating environment. These choices affect how much cost is borne within each value chain and so it is important to capture these differences through the apportionment of a combined model using the asset split for that company” (UU_S6002, 2018 p. 15).

We remain of the same opinion and in agreement with Ofwat’s initial judgement.

Ofwat’s proposal to move away from allocating the overall wastewater cost assessment, to an approach that uses Bioresources-only models to set the Bioresources controls for the final determinations would fail to capture trade-offs across the value chains (or any differences in cost allocations between the two services). Furthermore, given the small dataset utilised for wastewater cost assessment and the potential for omitted variables, utilising only granular models increases the risk of cost allocation discrepancies resulting in overly generous allowances for some. This is evident by the wider spread of residuals within the granular models. This is particularly problematic for customer protection, given the greater rate of retention by companies of variations in Bioresources costs.

Ofwat acknowledges that utilising an upper quartile efficiency level *“recognises that statistical models are imperfect, and consequently the estimation of efficiency imprecise”* (Ofwat, 2019 p. 27) whilst calculating this at an aggregated (wastewater) level recognises the trade-offs across the value chain mentioned above. Deviating from this position, either by setting an aggregate efficiency more challenging than the historical upper quartile or by basing the upper quartile efficiency calculation on sub-service models, as proposed within FM_WW2_ST_DD, would ignore the limitations and imperfections present within the granular econometric models.

Table 1 Historical efficiency scores for Wastewater price controls; sourced FM_WW2_ST_DD.

	<i>Bioresources plus</i>	Bioresources	Wholesale wastewater triangulated
ANH	1.039	1.194	1.001
NES	0.903	0.740	1.029
NWT	1.293	0.748	1.267
SRN	1.253	0.882	1.046
SVT	0.860	0.810	0.873
SWB	1.102	1.175	1.054
TMS	0.893	1.075	0.988
WSH	0.988	0.957	1.071
WSX	0.904	1.197	0.871
YKY	0.935	1.337	0.986
Historical UQ	0.903	0.828	0.986

In our business plan submission, we noted,

“It would be inappropriate to set separate efficiency adjustment for e.g. Wastewater Network Plus and Bioresources, as this would lead to an artificially high percentile being applied that no company would be able to achieve [across the two controls]” (UU_S6002, 2018 p. 65).

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The majority of companies are (modelled as) more efficient in one price control and inefficient in another (comparing Bioresources and Bioresources plus). Table 1 above also supports the notion that substitution effects are not only present but that they are a material issue between Bioresources and Sewage Treatment - the overall triangulated wastewater assessment being a significantly better explainer of cost than either of its component parts. A price control specific upper quartile approach would ignore these substitution effects and so the resulting allocations and upper quartile would be unduly biased downwards, as well as resulting in inappropriate cost allocations between companies. The resulting efficiency challenge would be significantly more stretching than the overall wastewater upper quartile. We have calculated the indicative Bioresources totex baselines for all companies under the three potential scenarios:

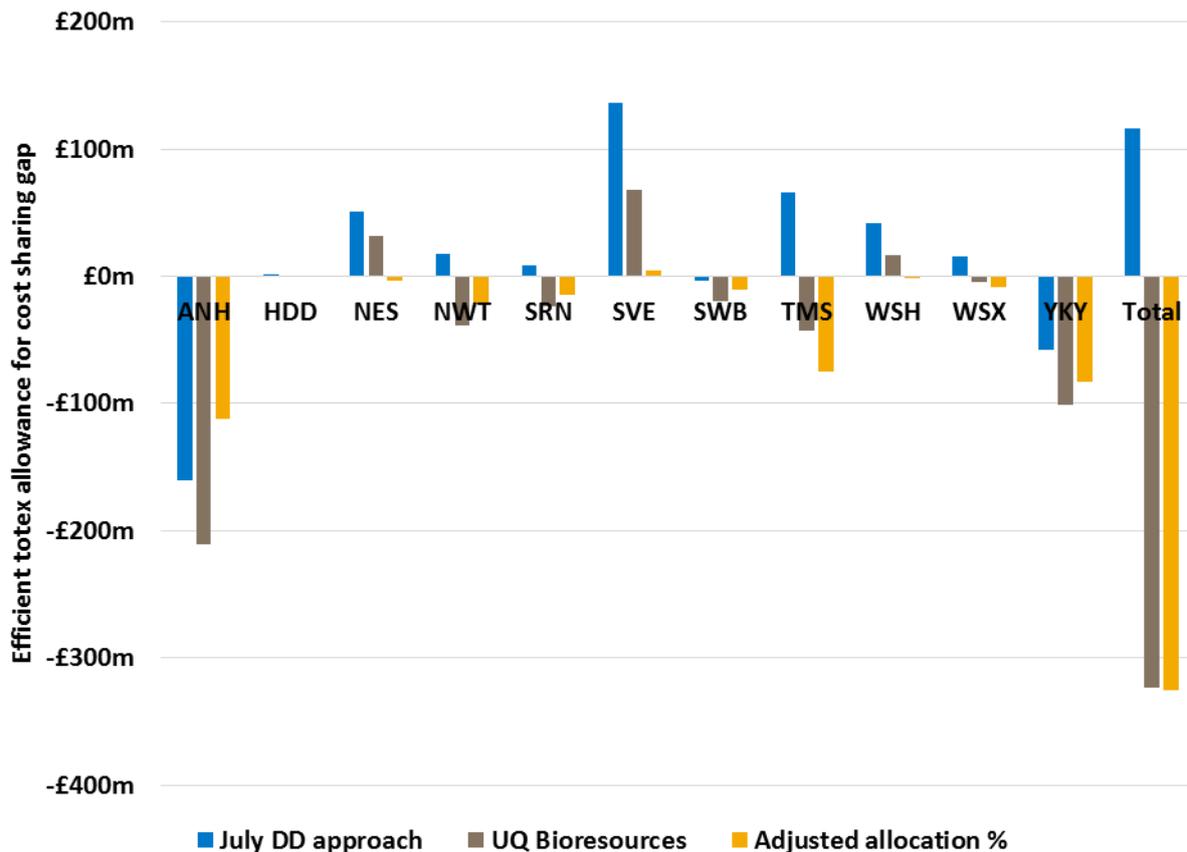
- **July DD approach** is the current approach to deriving cost baselines included within Ofwat’s draft determinations for the slow track and significant scrutiny companies,
- **UQ Bioresources** utilises only the Bioresources and Bioresources plus models (‘Average of BR and BRP minus Sewage Treatment’) applying both the UQ adjustment stated within FM_WWW2_ST_DD as well as the frontier shift & real price effect adjustments and,
- **Adjusted allocation %** uses the same approach to calculating Wholesale Wastewater expenditure as within the July DD approach but allocates using the ‘proportion to bioresources’ within the business plan modelled costs rather than the modelled cost proportion. This is consistent with Ofwat’s approach to Water Resources.

The different ‘efficient totex allowances for cost sharing’ generated for all companies are within Table 2 below and the resulting gaps to the business plan (Business plan totex excl. third party and PDRC, incl. G&C) for each company is illustrated in Figure 1. As Figure 1 and Table 2 show, the current approach to deriving efficient baselines for Bioresources (the blue bar in Figure 1) has resulted in an apparent “over allocation” of more than £100m across the industry (which results in significant windfall gains for some companies due the lack of cost sharing for Bioresources outperformance). Both alternative approaches result in approximately the same (lower) total expenditure allowance to the industry (c£2.5bn) for Bioresources – however, our proposed “adjusted allocation %” approach more significantly minimises the gaps to company business plans, as well as avoiding the aforementioned distortions caused by using an approach that ignores substitution effects (as is the case with the UQ Bioresources approach).

Table 2 Efficient totex allowance for cost sharing (£m). Proposed options; sourced FM_WW2_ST_DD & FM_WW4_ST_DD

Company	Business plan totex excl third party and PDRC, incl G&C	July DD approach	UQ Bioresources	Adjusted allocation %
ANH	489	328	278	377
HDD	4	5	5	4
NES	74	125	106	70
NWT	372	390	334	351
SRN	203	211	179	188
SVE	312	448	380	316
SWB	101	97	81	91
TMS	658	723	615	583
WSH	125	167	142	124
WSX	123	139	119	115
YKY	372	314	271	289
Total	2,833	2,949	2,510	2,508

Figure 1 Gap to the efficient totex allowance for cost sharing (£m). Proposed options; sourced FM_WW2_ST_DD & FM_WW4_ST_DD



The problem that Ofwat faces is not just that Bioresources allowances do not appear sufficiently stretching, it is also that (comparatively) allocations based on modelled expenditure allowances are more susceptible to be biased, likely due to the impact of omitted variables in parsimonious models. In selecting the most appropriate approach, we have assessed each of the options available based on four key criteria:

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- **Bioresources challenge** – does the approach result in an appropriate challenge to total Bioresources expenditure? *We agree that the current approach appears to fail this criterion.*
- **Wastewater challenge** – does the approach result in an appropriate challenge to total Wastewater expenditure? Ofwat’s proposal to utilise a disaggregated bioresources frontier assessment (i.e. the “UQ Bioresources” approach) would fail this criteria, by setting an unjustifiable challenge to overall wastewater costs.
- **Network+/Bioresources allocation** – does the approach reflect the actual allocation assets between Network+ and Bioresources when apportioning Wastewater modelled expenditure? *The “Adjusted allocation %” approach is the only method that appears to achieve this.*
- **Company forecasts** – does the approach result in more accurate predictions of costs at a company level? The “Adjusted allocation %” approach is the only method that appears to achieve this, and thus avoids the undue windfall gains for any individual company that results from the other two approaches, and hence best protects customers.

Table 3 Option assessment for applying a stronger Bioresources efficiency challenge

	ST_DD approach	UQ Bioresources	Adjusted allocation %
Bioresources challenge	x	✓	✓
Wastewater challenge	✓	x	✓
Network+/Bioresources allocation	x	x	✓
Company forecasts	x	x	✓

We previously noted that:

“Using company specific [actual cost] weightings rather than an industry average or a weighting based on modelled proportions is important as it ensures that predictions reflect the relative asset configurations in each of the controls and that should provide a more appropriate BCT for each individual company” (United Utilities, 2018 p. 12).

Assessing against these four tests, our own analysis confirms that the most credible and robust solution to the issue with Bioresources cost assessment is through adopting the **Adjusted allocation % approach**. It ensures that the amount allowed within Bioresources is set at a more stretching level, maintains the aggregate wastewater efficiency challenge, allocates Wastewater expenditure more in line with the asset configuration (proxy by cost) between the two controls of the company and more closely correlates with company business plans giving a better idea of true efficiency. **This will also offer the greatest protection to customers across all companies, preventing them paying for a service that may not be required, in a control with no sharing expenditure mechanism.**

In summary, United Utilities proposes that Ofwat:

- Allocates between Wastewater Network plus and Bioresources based on the ‘proportion to bioresources’ weightings, consistent with the approach taken to Water Resources.

1.2.3 Frontier shift and claw back mechanism for RPE assumptions

As part of the updated approach to cost assessment, Ofwat

“conclude that there is sufficient and convincing evidence for us to make an adjustment for real price effects for labour costs” adding that “Given the uncertainty in the forecasts of labour productivity and real wage growth we consider that there should be an ex-post true up at PR24 based on outturn manufacturing wage growth, which follow similar growth patterns to water sector wages” (Ofwat, 2019 p. 29).

We welcome the partial acceptance that the Wholesale controls will be subject to real price effects and that Ofwat should make an adjustment within the determination of the cost baselines to reflect labour real price effects (RPEs). We continue to believe that the actual effective net frontier shift (productivity + real price effect + performance) faced by companies is significantly higher than the ~1.1% per annum stated (for example, due to absorption of additional base costs to deliver more stretching base performance targets), which risks setting an excessively stretching baseline, harming customers in the long run. We do believe that there is more that Ofwat can do to limit this risk when assessing the real net frontier shift in the round but the acceptance of labour RPE will at least reduce the risk somewhat.

However, we do not agree that an ex-post true up at PR24 is required, particularly one that is based on manufacturing wage growth given the high level of uncertainty within that sector posed by Brexit. Customers are already afforded sufficient protection through the cost sharing mechanism and we do not believe that further protection is required to share the risk appropriately.

In this section, we provide comments on Ofwat’s approach to selecting the index to assessing RPE for Labour costs.

Ofwat’s economic consultants, Europe Economics (EE), include within their assessment (Europe Economics, 2019 p. 51) the justification for proposing manufacturing sector as a proxy to index real price effects within cost assessment. It proposes this using a subjective matrix whereby four key criteria area tested as per the table below.

“Each criterion is scored on a five-point qualitative scale (very good, good, sufficient, bad, very bad) and an overall score is given to each of the indexation options considered” (Europe Economics, 2019 p. 86).

	All employees	Manufacturing	Water and sewerage
Quality of data	Very good	Very good	Very bad
Similarity in nature of work to water sector	Bad	Good	Very good
Correlation with water sector wages	Good	Good	Very good
Does not give rise to incentive problem	Very good	Very good	Very bad
Overall	Good or sufficient	Good	Bad

Source: Europe Economics analysis.

The assessment for ‘Quality of data’ involves looking at the coefficient of variation (CV) which is a measure of the quality of each estimate within the different sectors of the ASHE (Annual Survey of Hours and Earnings) and scores each industry comparator as follows.

All Employees	0.2	0.2	0.2	0.2	0.2	0.2
All Manufacturing	0.5	0.5	0.7	0.6	0.6	0.6
Water collection, treatment and supply	3.1	3.4	3.4	3.4	3.4	3.3
Sewerage	4.8	5.6	5.3	4.4	4.8	5.0

Source ONS.

Within this assessment, EE assess that because the

““Water collection, treatment and supply” and the “Sewerage” sectors are lower by various orders of magnitude than the quality of estimates for “All Employees” and “All Manufacturing”. Therefore, both the “All employees” and “Manufacturing” indices score “very good” whereas water and sewerage index scores “very bad” for this criterion” (Europe Economics, 2019 p. 87).

This recommendation is significantly flawed as it ignores the ONS guidance for the use of CV, which states that, a **CV of <=5% indicates that estimates are considered precise**. EE’s assertion that simply because there is a comparative difference between the CV of ‘Water collection, treatment and supply’ or ‘Sewerage’ and ‘All employees’ and ‘All manufacturing’ is irrelevant as the data is still considered precise by the ONS as all indices have a CV of less than 5%.

Precise data, irrespective of comparative differences, is still of very good quality and appropriate for use in this assessment and so must be scored as ‘very good’. If we adjust this score and reassess the indices (assigning scores of 2 to -2 for the qualitative scale) then Water and sewerage (1.25) outperforms the ‘All employee’ (1.0) index and is only marginally behind ‘All manufacturing’ (1.5).

	All employees	Manufacturing	Water and sewerage
Quality of data	Very good	Very good	Very good
Similarity in nature of work to water sector	Bad	Good	Very good
Correlation with water sector wages	Good	Good	Very good
Does not give rise to incentive problem	Very good	Very good	Very bad
Overall	Good or sufficient	Good	Good

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It is also debatable whether an individual company can actually influence the index sufficiently to offset the actual additional increased costs that it would face. If company A offered higher wages in an attempt to influence the index to achieve a higher (ex-post) cost allowance they would be subject to all of the increased costs but the index would not increase by the equivalent amount assuming other companies remained constant. This would therefore result in simply company A paying a higher amount for labour than the increase it would receive ex-post to its cost allowance.

Clearly then, no company would actually attempt to do this and so the incentive to try to influence the index is minimal, if present at all (indeed a prisoner's dilemma situation would actually incentivise a company not to artificially increase their wage growth and so this may lead to downward pressure on costs, due the greater incentives for improved efficiency). This means we should actually score the fourth criteria more positively than EE's assessment and any score equal or greater than 'sufficient' would put the 'Water and sewerage' index on a par or better than the 'All manufacturing' in terms of its appropriateness.

The key risk that we foresee with making an ex-post adjustment using the 'All manufacturing' index is the future uncertainty due (for example) to the prospect of a "no deal" Brexit. Whether you are optimistic or pessimistic regarding Brexit, the impact on the manufacturing sector will be more noticeable given the change to international trading arrangements and the impact on the currency (affecting both the balance of trade and the cost of production). Significant changes in demand for UK manufacturing goods will have an impact on the demand, and therefore the price, of labour within the manufacturing sector.

The Water Industry is unlikely to be exposed to the same risk of cost volatility, particularly for labour, as all demand is domestic and relatively certain in the short run (revenue caps and customer demand). Whilst history may indicate that the two indices *correlate* well, correlation does not imply causation and the uncertainty over the future state of the manufacturing sector should preclude this from use in reconciling any real price effects in the water sector.

Customers are already afforded significant protection through the totex sharing mechanism (which, at an industry level, seems likely to be significantly greater than 50% based on current submissions) and so the requirements for an ex-post correction is limited. If Ofwat believes this protection is insufficient, either it would be more appropriate to use the 'Water and sewerage' index or alternatively, Ofwat could build upon the work of the Cost Assessment Working Group and utilise the SOC (Standard Occupational Classification) weightings derived from analysis of actual company labour structures. This approach would provide not only the most representative view the actual exposure to real price effects, it removes any perception of endogeneity by utilising an economy wide measure (as is CPIH), thereby minimising the risks of volatility in specific sectors.

1.3 Cost adjustment claims

Within our Draft Determination response, we provided further clarification on our cost adjustment claims for the 'Combination of exogenous factors impacting surface water runoff' (D003a) and for the 'Manchester & Pennines Resilience' (D003c) project whilst we withdrew our claim for the 'Distance to landbank'. Visibility of Ofwat's approach to assessing grants and contributions also meant that we submitted a new cost adjustment claim due to insufficient allowance for gross diversions expenditure within the baseline. For the avoidance of doubt, all of these claims (in addition to the reservoir claim D003b discussed in section 1.3.1) remain

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appropriate and we have not seen any change to cost assessment that would necessitate us to withdraw these proposed adjustments.

Given Ofwat’s acceptance of equivalent cost adjustments from two other companies for reservoir safety, we set out below some further evidence for why these claims are consistent and equivalent.

1.3.1 Assessment of Impounding Reservoir cost adjustment claims

[X]

[✂]

1.4 Identification of errors in Ofwat’s revised cost assessment approach

We have reviewed the feeder models provided by Ofwat for the July Determinations and have identified three errors within the assessments that have a significant impact on the resulting allowances. The first two primarily concern calculation errors within the associated feeder model and so we provide the steps required to correct, the third error however is methodological in nature but is of equal importance to maintain credibility in the process.

There is a separate error within FM_WWW4_ST_DD ‘Modelled costs’ tab (columns X and Y) which incorrectly multiplies the Bioresources modelled costs by a blank cell rather than the upper quartile efficiency challenge, but as the values within the ‘Final allowances’ have been hard pasted rather than linked it does not impact the outputs of the feeder model.

1.4.1 Error in application of efficiency to WINEP costs

In reviewing the revised approach to assessing enhancement expenditure, we have noticed an error within Ofwat’s application of the efficiency challenge when assessing Wastewater WINEP in the round (FM_E_aggregator_ST_DD). The model incorrectly calculates the upper quartile percentile and includes the efficiency ratio of Hafren Dyfrdwy which, given the issues of modelling such a small company, further exaggerates the upper quartile to an unreasonable level.

The feeder model aggregates all modelled allowances and compares them to the company business plan values in order to derive an allowance/requested ratio, which is used to derive the efficiency challenge as below.

Table 4 WINEP in the round. Ofwat calculations FM_E_aggregator_ST_DD

	Business plan submission	Totex after reallocations	Modelled Allowance	Allowance / Requested	Modelled Allowance post-efficiency	Totex allowed - wholesale wastewater
ANH	788.867	791.915	737.127	93%	673.568	673.568
HDD	2.718	2.718	9.006	331%	8.230	2.718
NES	173.948	173.948	158.353	91%	144.699	144.699
NWT	647.075	647.075	684.117	106%	625.129	625.129
SRN	612.204	612.204	583.226	95%	532.937	532.937
SVE	400.574	400.574	513.851	128%	469.544	400.574
SWB	137.935	145.228	189.054	130%	172.753	145.228
TMS	379.389	379.389	335.714	88%	306.767	306.767
WSH	207.109	207.109	214.359	104%	195.876	195.876
WSX	428.601	451.495	387.982	86%	354.528	354.528
YKY	714.087	754.568	692.094	92%	632.418	632.418
Total	4492.507	4566.223	4504.882		4116.449	4014.441
			Upper Quartile	91%		88%

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This is a standard approach and used elsewhere within cost assessment, namely in deriving the historic upper quartile efficiency adjustment for botex. There is a slight difference in this approach in that the efficiency factor for each company is represented inverse to the usual interpretation – i.e. it divides modelled by the company costs rather than vice versa (as within e.g. the botex UQ assessment). Traditionally a value less than 1 represents efficiency, while a value greater than 1 represents inefficiency. As this formula has been inverted in this case, the inverse is true when interpreting the factors and therefore greater than 1 represents efficiency etc. This difference would be simply presentation if subsequent calculations account for this change. However, there are two mathematical issues with this calculation and one practical application issue:

- **The ‘upper quartile’ calculation is incorrect.** The calculation (cell H17) returns the 25th percentile value within the range. As described above, values greater than 1 are efficient and less than 1 inefficient and as excel ranks from low to high, taking the 25th percentile value of this ranking actually returns the **lower quartile (inefficient) value and not the upper quartile.**

Company	Allowance / Requested
WSX	86%
TMS	88%
NES	91%
YKY	92%
ANH	93%
SRN	95%
WSH	104%
NWT	106%
SVE	128%
SWB	130%
HDD	331%
25 th percentile	91%
75 th percentile	117%

- **The efficiency adjustment fails to account for the fact that the efficiency factor is inverted.** We can correct for the error above by instead returning the 75th percentile but subsequent calculations do not account for the fact that the efficiency factor is inverted to traditional presentations. Ofwat multiply the modelled allowance by the ‘Upper quartile’ value in order to derive the ‘Modelled Allowance post-efficiency’. Multiplying the modelled allowance by the revised upper quartile value of 117% is clearly not appropriate. For simplicity and consistency, we suggest that Ofwat adjusts the efficiency factor so that it calculates on the same basis as elsewhere within cost assessment (i.e. company divided by modelled costs).

Table 5 WINEP in the round. Corrected Ofwat calculations FM_E_aggregator_ST_DD

	Business plan submission	Totex after reallocations	Modelled Allowance	Allowance / Requested	Modelled Allowance post-efficiency	Totex allowed - wholesale wastewater
ANH	788.867	791.915	737.127	107%	635.922	635.922
HDD	2.718	2.718	9.006	30%	7.770	2.718
NES	173.948	173.948	158.353	110%	136.611	136.611
NWT	647.075	647.075	684.117	95%	590.190	590.190
SRN	612.204	612.204	583.226	105%	503.151	503.151
SVE	400.574	400.574	513.851	78%	443.301	400.574
SWB	137.935	145.228	189.054	77%	163.098	145.228
TMS	379.389	379.389	335.714	113%	289.621	289.621
WSH	207.109	207.109	214.359	97%	184.928	184.928
WSX	428.601	451.495	387.982	116%	334.713	334.713
YKY	714.087	754.568	692.094	109%	597.072	597.072
Total	4492.507	4566.223	4504.882		3886.379	3820.729
			Upper Quartile	86%		84%

- Ofwat include Hafren Dyfrdwy (HDD) within the efficiency assessment.** One of the key issues is the inclusion of Hafren Dyfrdwy (HDD) within the upper quartile efficiency assessment. HDD has an ‘efficiency’ of 0.3 (or 331% in the calculation) which is undoubtedly a result of issues with modelling a company of this scale and not actual efficiency. HDD serves 0.07% of wastewater customers and accounts for less than 0.06% of industry WINEP expenditure in Wastewater yet its inclusion has a 9% influence on the upper quartile percentage – this is clearly disproportionate. Issues with attempting to model such a small company should automatically prevent their inclusion in this assessment. This is most clearly illustrated by the ‘Flow to Full Treatment’ analysis where the constant term within the linear regression allows for more than 35% (£8.9m/£25.5m) of the required expenditure to operate the entire wastewater business for a scheme that HDD forecast will cost only £374k. Within all other assessments of efficiency (FM_WWW2_ST_DD and the Company-efficiency-factor_ST_DD), Ofwat discount the use of HDD, presumably in acceptance of this issue and so we do not see why it should be included within this instance. Removing the company (on the grounds of materiality) or combining the Severn Trent/Hafren Dyfrdwy expenditures for the purposes of deriving the upper quartile percentage will negate this issue. For the example in Table 6 below, we have derived the combined efficiency score for HDD and SVE in addition to correcting the UQ calculations as set out above. This enables Ofwat to maintain separate allowances and results in the upper quartile adjustment factor of 0.95 (95%) which subsequently calculates the modelled allowance post-efficiency.

Table 6 WINEP in the round. Corrected Ofwat calculations and combined HDD/SVE efficiency score FM_E_aggregator_ST_DD

	Business plan submission	Totex after reallocations	Modelled Allowance	Allowance / Requested	Modelled Allowance post-efficiency	Totex allowed - wholesale wastewater
ANH	788.867	791.915	737.127	107%	700.961	700.961
HDD	2.718	2.718	9.006	n/a	8.564	2.718
NES	173.948	173.948	158.353	110%	150.583	150.583
NWT	647.075	647.075	684.117	95%	650.551	647.075
SRN	612.204	612.204	583.226	105%	554.610	554.610
SVE	400.574	400.574	513.851	77%	488.640	400.574
SWB	137.935	145.228	189.054	77%	179.779	145.228
TMS	379.389	379.389	335.714	113%	319.242	319.242
WSH	207.109	207.109	214.359	97%	203.842	203.842
WSX	428.601	451.495	387.982	116%	368.946	368.946
YKY	714.087	754.568	692.094	109%	658.137	658.137
Total	4492.507	4566.223	4504.882		4283.855	4151.915
			Upper Quartile	95%		91%

In summary, United Utilities proposes that Ofwat:

- Correct the error within the upper quartile percentage calculation and,
- Remove Hafren Dyfrdwy from the efficiency assessment for the final determinations for all companies, as their scale precludes them from being used for comparative benchmarking.

1.4.2 Error in calculation of Diversions Income

We have identified a source for error within the calculation of grants and contributions because of the different reporting practices of IRE adopted by companies. Within each feeder model, Ofwat states, “We haven't requested the opex/capex split for diversions so we assume it's opex”. The model apportions Ofwat’s view of opex grants and contributions between price control and non-price control based on the proposed company weighting (which differentiates between capex and opex). However, if the company does not report the expenditure as opex (or report any other grants and contributions as opex) within the revenue projection business plan table (without overriding the model) then there is no company weighting to use and the model makes no allowance for diversions any income. This error will therefore apply to any company that reports infrastructure renewals expenditure (IRE) as capital rather than operating expenditure or companies who have not allocated to the correct line within the revenue project table (Wr3, Wn4, WWn5 or Bio4). We have observed this error occurring within the models for Anglian, Bristol, Northumbrian, South East, Southern and Yorkshire Water.

In summary, United Utilities proposes that Ofwat:

- Ensure that the model correctly accounts for diversions grants and contributions for all companies for the final determinations or it will set net expenditure baselines that are too high.

1.4.3 Error in company specific efficiency factors

In reviewing the approach to calculating the company specific efficiency factors (*Company-efficiency-factor_ST_DD*) used in shallow and deep dive assessments of enhancement areas, we have noticed two issues that will result in some company specific efficiency factors being overstated:

1. **Ofwat fails to account for successful cost adjustment claims.** Ofwat's underlying assumption is that a company that is inefficient in its base programme (botex) will similarly be inefficient in its enhancement activities - we are not analysing this assumption here. To derive the efficiency factors, Ofwat compares its view of modelled botex excluding enhancement opex to the business plan less enhancement opex of each company. However, Ofwat does not make any adjustment for successful cost adjustment claims in botex in deriving this efficiency factor. In order to accept the adjustment in the first instance, Ofwat must have already assessed that these claims are efficient and therefore they should be included in Ofwat's view of expenditure within this assessment. By excluding the additional allowances, Ofwat is overestimating the inefficiency of such companies and therefore applying too much of a reduction to the enhancement expenditure allowance in the shallow and deep dives.
2. **Ofwat only adjusts for productivity and does not make an allowance for real price effects within the frontier shift.** In adjusting for efficiency in Ofwat's view of expenditure, an adjustment is made for both the historic upper quartile and the net frontier shift (5-year average). Within both Water and Wastewater assessments, the net frontier shift does not account for the allowance for real price effects that Ofwat has made within cost assessment. By excluding the real price effect allowance, Ofwat is overestimating the inefficiency of such companies and therefore applying too much of a reduction to the enhancement expenditure allowance in the shallow and deep dives.

In summary, United Utilities proposes that Ofwat:

- Update the assessments of company specific efficiency to account for any accepted botex cost adjustment claims and,
- Update the assessments of company specific efficiency to account for the additional allowance that made to account for real price effects within the frontier shift.

1.5 WINEP cost adjustment mechanism

We highlighted in our Draft Determination response document (UU_DD03, 2019 p. 33) the potential for ‘non-amber’ schemes (namely ‘red’ but also ‘purple’) to be included within the final WINEP, which was the reasoning behind our proposal for a two-sided adjustment mechanism. Having reviewed the draft determinations, our understanding of Ofwat’s position is that:

- It makes an allowance for all (green and) amber schemes included within the company business plan if there is an appropriate adjustment mechanism in place.
- Ofwat makes an allowance and employ a one-sided mechanism if a company includes all current amber schemes in its business plan (as UUW has).
- Ofwat only employ a two-sided mechanism if a company does not include all current amber schemes in its business plan to enable the remaining ambers to be included within the final programme (if they subsequently turn green).

It is our assumption that any two-sided mechanism will therefore only apply to listed amber schemes currently not included within the plan rather than *any* scheme subsequently included within WINEP. If this is the case then a clear statement about the schemes currently not allowed within totex but subject to the mechanism should be included within company determinations. If however, our assumption is incorrect and this applies to any scheme on the WINEP, then companies with a two-sided mechanism have a level of protection unavailable to those with a one-sided mechanism, which is inappropriate.

Following the recent conclusion of an investigation, United Utilities now has a high likelihood that a ‘red’ scheme will turn ‘green’ when EA confirms its list of green schemes in 2021. The change is in respect of environmental improvements in the Manchester Ship Canal (RBMP2 driver requirement on the Ship Canal to meet moderate status for dissolved oxygen). This follows confirmation from the EA that it now shares our view that a different solution will be required than that planned for AMP6 and this will likely result in additional WINEP requirements being placed on UUW in AMP7.

We currently assess the most likely outcome is to require a scheme is at Bolton WwTW to address the following four Water Framework Directive drivers:

- WINEP ID 7UU300118 - 15mg/l BOD
- WINEP ID 7UU200790 - 2mg/l ammonia
- WINEP ID 7UU200730 - 0.4mg/l Phosphorus
- WINEP ID 7UU200790 - Increase in flow to full treatment by c.50,000m³/d and 63,500m³ additional storm tank capacity to reduce the impact of the storm tanks discharge

We believe these drivers will be reassessed as green within River Basin Management Plan Cycle 3 in 2021. Whilst we may receive informal confirmation of this sooner, the designation of schemes will not formally change until then.

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Cost justification

We have examined the cost estimate for the prospective scheme at Bolton in three ways:

- Ofwat’s WINEP cost assessment model, which estimates a predicted cost of £115m;
- Our WINEP cost adjustment mechanism (albeit that mechanism is “one-sided”) unit rates, which imply a value of £96m²; and
- Our internal cost estimate for the scheme, which estimates the cost to be £78.3m, broadly built up as follows:

Table 7 Initial internal AMP7 cost estimate for potential Bolton WwTW scheme

Scheme element	Ofwat models	WINEP mechanism	UW estimate
Phosphorus 0.4mg/l	£56.2m	£40.0m	
Ammonia 2mg/l, BOD 15mg/l	£4.8m	n/a	£36.5m
Increase in FTFT 50MI/d	£9.9m	n/a	
Increase in storm storage 63.5 MI	£44.5m	£56.5m	£41.8m
Total	£115.3m³	£96.5m	£78.3m

Summary of UW Proposal

Ideally, it would be preferable for the EA to clarify the status of this scheme in time for it to be included within the Final Determination. However, given that this is unlikely to be possible, we propose to include a limited two-sided component to the WINEP cost adjustment mechanism, restricted to this environmental outcome for the Manchester Ship Canal alone. This protects customers in that the costs will only be applied in the event that EA confirm the scheme as green certainty in our WINEP, as we strongly expect. If for some reason it is not triggered (i.e. in the unlikely event that the EA do not require further work to be undertaken), customers are no worse off.

Given that it is possible that the EA could propose other solutions, we propose the trigger is EA/Defra approval of schemes required because of the revised Ship Canal strategy, rather than the specific scheme at Bolton. However, we expect other schemes (such as further work at Davyhulme and Salford) will not be as cost beneficial in AMP7.

We also propose to provide further customer protection by setting a reduced value for this proposed two-sided part of the WINEP uncertainty mechanism, to reflect our expectation that the cost of the schemes is less than that implied by the current WINEP mechanism rates (as set out above). We will propose a cost adjustment rate such that the two-sided mechanism value is limited by the predicted cost of the scheme and not the (higher) unit rate that is modelled in the current WINEP mechanism.

In order to help facilitate this impending change in requirements, we provide further detail and the proposed amendments to the WINEP cost adjustment mechanism in document J003a, as part of our response to the slow track draft determinations.

² Based on the rates for phosphorus removal and storage only as there are no unit rates for sanitary parameters or increasing flow to full treatment

³ Total does not equate to the sum of the parts as this includes the WINEP efficiency in the round adjustment applied by Ofwat. This efficiency value has been corrected in line with the approach set out in section 1.4.1. Model coefficients not updated to account for additional UW scheme.

In summary, United Utilities proposes that Ofwat:

- Provides the capability for an ex-post adjustment for this ‘red’ scheme, increasing allowed totex by the lesser of the cost adjustment mechanism value, Ofwat PR19 modelled value or actual project value.

2 Retail

We understand Ofwat’s reasoning in updating some of its approaches to residential retail cost assessment, notably the decision not to use council tax collection rates as a cost driver, as well as logical changes to depreciation figures and metered customer forecasts.

This document primarily addresses new issues that have arisen and, unless stated, does not supersede those that we raised as part of our own draft determination response in May. Our response on cost assessment can be divided into three categories, and we structure the document as follows:

- Section 2.1 restates our view on the limited value of making cost adjustments for differences in regional household transiency rates,
- Section 2.2 presents our view of how best to index future average household bill projections when modelling efficient retail cost allowances,
- Section 2.3 sets out our observation that the average efficiency challenge embedded in companies’ AMP7 business plans closely matches historic upper quartile cost challenges, suggesting that companies have effectively observed and taken on an upper quartile efficiency challenge, and that the future looking upper quartile challenge is therefore not appropriate.

2.1 Adjustment to transiency factors

As stated in our response to UU’s Draft Determination (UU_DD03, 2019 p. 61), based on detailed cost modelling we have concluded that transiency and migration have a weak effect on retail costs in the UU region. Our detailed analysis suggests that transiency costs are overall immaterial, and we continue to recommend that cost cross industry adjustments for transiency are not needed.

Nevertheless, if a modelling factor for transiency is to be used, then there are good reasons for believing that the current ‘total migration’ metric is generally reflective of the way transiency drives costs. In particular, the migration metric is likely to be superior to other metrics that look to count total in area home moves.

Some customers that move home leave unpaid debt behind, commonly referred to as ‘leaver debt’. Our analysis has shown that it is this leaver debt that is the primary retail cost associated with customer transiency. Notwithstanding that there are a number of ways that this ‘leaver debt’ can be effectively pursued (UU_S6013, 2018), in theory an increase in levels of customer transiency in a region should result in some increase in operating costs for water companies.

Crucially a company’s ability to pursue leaver debt reduces when a customer moves out of the area served by the company, becoming an inactive customer with, more often than not, out of

date contact details. Where a customer simply moves within the area served by a company, the company will still have access to customer contact details, and can pursue all normal debt management activities. It therefore makes good operational sense that a metric for transiency that focusses on moves in and out of company’s area of service would be an appropriate metric on which to base a cost driver.

In summary, United Utilities proposes that Ofwat:

- Not include a transiency factor when assessing residential retail cost allowances, and
- That if a transiency factor is to be used, recognise the current approach of using total migration figures is the most appropriate cost adjustment factor available.

2.2 Future bill forecasts

Between the IAP and Draft Determinations, Ofwat has changed the price base of the average bill cost driver when calculating future modelled costs. The reason for the change is “to ensure consistency of price base with the costs in the dependent variable”. However, we propose that the change actually introduces a different, but crucial inconsistency, which drives an unsupported additional cost challenge. As a result, we therefore recommend the change should be reversed.

Whilst the historic retail model set uses input data indexed to 2017/18 average prices, the models are subsequently used to generate nominal cost forecasts. This arrangement is unique to retail models; wholesale models apply a consistent price base for both historic and future projections.

Table 8 Comparing the price base of modelled costs and explanatory factors - IAP approach

	Historic cost models	Future modelled costs	
Ave bill explanatory factor	2017/18 prices	Nominal	Price bases unaligned
Modelled costs	2017/18 prices	Nominal	Price bases unaligned
	Price bases aligned	Price bases aligned	

Table 9 Comparing the price base of modelled costs and explanatory factors - DD approach

	Historic cost models	Future modelled costs	
Ave bill explanatory factor	2017/18 prices	2017/18 prices	Price bases aligned
Modelled costs	2017/18 prices	Nominal	Price bases unaligned
	Price bases aligned	Price bases unaligned	

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Both the IAP approach and the revised DD approach result in inconsistencies in price base. However, in reality outturn costs will be driven by outturn average bills. It is therefore important that nominal cost projections are driven by a view of average bills that is in the same price base. By deflating future nominal average bills back to 2017/18, but not adjusting future cost projections by the same factor, Ofwat impose an implicit, unsupported additional efficiency challenge. We estimate the scale of this unsupported cost challenge at c.£110m across the industry (3% of modelled costs).

We recognise that this leads to a technical inconsistency in price base for the average bill explanatory factor; however, we have shown that some inconsistency is unavoidable, and this is a minor and acceptable adjustment given the scale of unsupported cost challenge implied by the approach applied in Slow Track Draft Determinations.

In summary, United Utilities proposes that Ofwat:

- Revert to the previous approach of using nominal average bills when modelling future retail costs

2.3 Upper Quartile efficiency challenge

We note that the historic upper quartile catch-up factor (88% of industry average costs) and the industry average future looking 'efficiency scores' (88% of modelled efficiency scores) are nearly identical under the refreshed cost models.

The historic upper quartile catch-up factor is 88.1% of industry average costs. Whilst the industry average future looking 'efficiency scores' are 87.9% of modelled future retail efficient costs.

Historic upper quartile catch-up factor	88.1%	This is the historic upper quartile efficiency factor, as calculated in FM_RR2_ST_DD
Industry average forward looking efficiency challenge	87.9%	This is the industry average forward looking efficiency challenge, as calculated in FM_RR4_ST_DD
Upper quartile forward looking efficiency challenge	79%	This is the upper quartile forward looking efficiency challenge, as calculated in FM_RR4_ST_DD

Currently Ofwat propose that the AMP7 catch-up cost challenge be a 50/50 hybrid of historic and future looking upper quartile cost challenges.

However, it appears that, on average, the industry has observed current upper quartile performance and included this level of efficiency challenge in business plan proposals. This is a positive action by the industry to pursue the level of real cost efficiency that the best in the industry are already achieving. Companies have taken this action to pursue an efficient level of cost without waiting for Ofwat to impose it upon them.

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Therefore, it is reasonable to replace the future looking upper quartile cost challenge with an industry average cost challenge as companies, on average, have already done a great job of identifying historic upper quartile efficiency rates and challenging themselves to deliver against it through their forward-looking business plans.

In summary, United Utilities proposes that Ofwat:

- Apply a future looking industry average, rather than upper quartile, cost challenge.

3 References

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4 J003b – Revised cost tables : Table commentary

4.1 Overall commentary

This data commentary summarises the changes applied to tables R1, WS1, WS2, WwS1 and WwS2 from our original business plan submission in September 2018 to the revised tables we are now submitting. It is important to note that no new information is being provided within these data tables from what we have previously communicated to Ofwat, it simply consolidates information from previous submissions (e.g. queries).

For ease of reconciliation to our original submission we have left the FY19 and FY20 values unchanged. Whilst there has been some movement between these two years, we do not expect any material impact on forecast costs across AMP7. Therefore, we have not been included updated APR data within the revised tables.

For our draft determination representations, following a clarification with Ofwat we allocated LCSP expenditure (IRE) as capex in order for it to be assessed within the enhancement model. Ofwat has now moved to assessing enhancement costs inclusive of opex, and therefore this reallocation is no longer required. However, we have maintained the same mapping within WS2 table for consistency. This will therefore generate a variance between WS1 and WS2 as this cost is being held as IRE (not capital enhancement) within table WS1.

4.2 Summary of changes

4.2.1 Table R1 – Residential Retail

Reference ID: Query U UW-IAP-CA-013

Submission Date: October 2018

Response summary: In response to Ofwat query reference U UW-IAP-CA-013 we identified BM9002 in table R1 for the years 2012/13, 2013/14 and 2014/15 had been incorrectly reported, as a result of incorrectly adding retail general and support costs disclosed as a memo in column 2 of the original Regulatory Accounting tables to the retail household costs reported in column 1.

We also identified that values for BM9030, BM9007 and BM1003 had been incorrectly reported over the same three-year period for the same reasons as the misstatement of BM9002.

This resulted in total operating expenditure (reported on R1 lines BM9021 and BM9023), total residential retail costs (R1 line R1002) and Debt management ~ residential (Table R3 line BM9002_CPY) requiring restatement in the revised tables.

For full details on these changes, please see our response to query U UW-IAP-CA-013.

4.2.2 Grants and contributions – WS1 (Line 5, 20, 21), WwS1 (Line 5, 20, 21)

Reference ID: IAP response document: I012 - PR19-Business-plan-data-tables-Jan2019 (United Utilities - fast track) - Corrected.xlsm

Submission Date: February 2019

Response summary: In response to Ofwat introducing new lines into tables WS1 and WwS1 to split Grants and Contributions between opex and capex as part of the IAP phase we resubmitted the impacted lines on tables WS1 and WwS1 in February 2019.

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A consequence of splitting out Grants and Contributions – Opex into its own line was that we also needed to update line 5 ‘Renewals expensed in year (Infrastructure)’ to show gross spend rather than the previously submitted spend net of Grants and Contributions – Opex.

For further detail on our approach to completing the table extracts, please see document ‘I013 – Data table commentary’.

4.2.3 WINEP Adjustments – WwS1 (Line 1, 7, 8, 15), WwS2 (Line 9, 10, 56, 57)

Reference ID: Fast track DD response document: D003 - Cost assessment

Submission Date: May 2019

Response summary: Following confirmation from Defra of the removal of Allonby South bathing water from the list of designated bathing waters we have removed three enhancement schemes from the WINEP. The three schemes no longer required are Allerby WwTW, Crosscanonby WwTW and Dearham WwTW. Given these schemes were included within our original business plan submission we have removed these in the revised tables WwS1 and WwS2 across the impact opex and capex lines.

For further detail of the cost adjustment, please see document D003 – Cost Assessment.

4.2.4 Strategic Regional Solution Development – WS1 (Lines 14, 15), WS2 (Line 25)

Reference ID: Fast track DD response document: D003f - Cost assessment data tables WS2, Wn6 and WWn8.xlsb

Submission Date: May 2019

Response summary: Following confirmation that we are to progress with the Strategic Regional Solution Development as part of the IAP phase we have reflected the costs associated with this in tables WS1 and WS2. The total cost of progressing this scheme has been split in table WS1 between Line 14 – Other capital expenditure (Infrastructure) and Line 15 – Other capital expenditure (Non-infrastructure). An additional free form line has been added to table WS2 to capture the costs associated with the Strategic Regional Solution Development.

For further details, please see fast track DD response document reference number D003e (New Enhancement – Strategic Water Resources – Severn Thames Transfer).