

To: [REDACTED]

By email only: [REDACTED]

15 September 2022

Dear [REDACTED]

We appreciate the opportunity to provide feedback to Ofwat on its Draft Methodology and the Bioresources supplementary document. The draft methodology proposes significant changes to the bioresources price control. The proposals represent a shift from a cost assessment framework based principally on expenditure to one that relies extensively on accounting measures of capital costs through depreciation. The proposals therefore introduce potentially significant risk into the framework as it moves from a true cash basis to an approach that includes somewhat subjective costs influenced by accounting assumptions. This risk is illustrated by the fact that for some companies the costs under the “reformed” approach, which include financing costs, are lower than the reported Botex. The consultation itself highlights some of the concerns with Ofwat’s preferred option, including counter-intuitive signs and insignificant coefficients when longer time periods are considered. These and a number of other areas of significant concern require further consideration.

For these and other reasons, we believe it is premature to introduce such a significant change to the bioresources price control for PR24. Further analysis and consideration is needed, and it is not clear that the benefits of the proposed approach outweigh the risks and potential for unintended consequences.

There are a number of specific areas where we have concerns that the proposals have not been adequately considered and may lead to unintended consequences, these include;

- The wider strategic vision for bioresources and how Ofwat sees the subsequent evolution of bioresources regulation as the role of market forces develop;
- The calculation of the asset base using the GMEAV and NMEAV;
- The development of the cost assessment framework including the application of the efficiency challenge, econometric modelling and RCV projections; and
- The calculation of the allowed revenues

Furthermore, the proposal to, in effect, discontinue the bioresources RCV is a significant change to the regulatory framework, the consequences of which are not explored in the draft methodology or the supplementary document.

We would welcome further engagement with Ofwat on these areas and suggest a working group be established to explore some of the main areas of uncertainty with a view to establishing what is feasible for PR24 and mapping out a strategy to implement at PR29.

Regards



Strategy and Regulation Director

Questions in the July 2022 draft methodology document

Q2.1. Do you have any comments on this section?

We have a number of comments to make on section 2: “Better Cost Assessment”

First, we support the general objective of trying to improve cost assessment for the purposes of price reviews, including the possibility of separate efficiency challenges for different price controls where appropriate. We do not support setting separate efficiency benchmarks for bioresources due to the substitutability between bioresources and wastewater network+. We do not agree with the view that better cost allocation can solve the issue of substitutability between different parts of the value chain. If there are genuine trade-offs between costs incurred in different price controls – whether because of topography, geography, or local market conditions – even perfect cost allocation will not eliminate the problem of substitutability. We note the suggestion that issues of substitutability arising because of “rags and grit” may be caused by poor management and therefore potentially solved by improved practices, but this does not negate the other sources of substitutability which are genuine and exogenous to company decision-making. Similarly, inviting companies to reallocate costs that are correctly booked to one price control to another does not offer a solution, since individual companies are not in a position to perceive by how much and in what ways their particular circumstances skew costs one way or another. Therefore, we believe that consideration of efficiency challenges for bioresources must be undertaken in conjunction with wastewater network plus, even if separate challenges are applied. Otherwise, there is a risk that infeasible combinations of efficiency challenge will be imposed on the sector.

Second, we note that it is proposed that legacy assets in the form of pre-2020 RCV are excluded from the application of catch-up efficiency, which is the correct treatment of these costs. However, this should also be extended to the application of frontier shift. By definition assets that are already in existence cannot be made cheaper as a result of future movements in input cost. The consultation outlines that there will be regulatory protection of the pre-2020 RCV, the application of a frontier shift to the legacy assets is inconsistent with this commitment and is a detriment to investment sentiment.

Third, we do not agree with the proposal to make no adjustment to reflect the discontinuation of renewable incentives. The purpose of the first step in cost assessment is to use available evidence to arrive at estimated cost functions that best represent the underlying economic and engineering relationships. The way in which the results of that process are applied to the setting of allowed revenues going forwards involves a degree of regulatory judgement. The proposal to distort the process of estimating cost functions in a way that cannot be a reasonable guide to future efficient costs conflates the objective of trying to estimate the most accurate underlying cost function with the task of applying regulatory judgement to arrive at fair outcomes. Had a fiscal measure that increased companies’ bioresources costs during the AMP5/6 periods been withdrawn at the start

of AMP7, it would have been similarly inappropriate to make no adjustment, as this would have distorted the process of trying to arrive at the true underlying cost function and would have been detrimental to customers.

Q2.2- Do you have any further comments on our approach to a separate efficiency assessment, in particular the options we consider in section 2.4.2?

See answer to Q2.1. We do not think a completely independent efficiency challenge for bioresources is feasible. We particularly disagree with option 2 (though neither of the other two options offers a way forward either). Companies should report and forecasts costs in line with the RAGs. In other words, the framework should fit the data and not the other way round. We understand the desirability of setting a specific efficiency challenge for bioresources, but this should be derived in conjunction with wastewater network plus. For example, under our preferred approach of “business as usual” with modelling adjustments (see question 3.9 below) Ofwat could model the two separately, but use the upper quartile at the aggregate level to derive an overall efficiency challenge and “pro rata” this between the two price controls according to what companies’ efficiency challenges would be if they were set separately. We note, however, that one of the disadvantages of Ofwat’s preferred option 3 is that this solution is not available, as it is not intended that wastewater network plus would be modelled on the same basis.

Q3.1 Do you have any comments on this section?

We have given comments on section 3.1 against the questions to which they are relevant below.

One additional observation we wish to make relates to the potential for including forward-looking business plan forecasts in the econometric modelling. We do not support this proposal.

Backward-looking data has the advantage that it is not influenced by speculation or aspiration, forward-looking data can be very unreliable. For example, the companies on whose forward-looking forecasts Ofwat based its upper quartile benchmark for residential retail at PR19 have significantly underperformed their own forecasts in this AMP period.

Q3.2- Do you have any further comments on the draft methodology proposals which we propose to retain from our December document and our reasons for doing so?

We have a number of further comments to make on the proposals that are retained from the December document.

First, as an over-riding observation, we understand and support to some degree the in-principle ambition of seeking to set price controls for bioresources on a total cost “gate-price” basis.

However, we think it may be premature to seek to implement such a major step in one go at PR24. It is clear from the supplementary document published on 2nd September that the modelling is not as straightforward as it might be, and the results are not compelling. On top of this, there remain

issues of data quality and measurement, and as set out in further answers below we have doubts as to whether the proposed approach would enable the low cost of finance that the sector has enjoyed in recent years to be maintained. In particular, the proposal (in effect) to discontinue the bioresources RCV is a significant change, the consequences of which are not explored in the draft methodology or the supplementary document.

Second, we do not agree with the proposal to treat financing costs in the same way in effect as cash expenditures in the econometric modelling and the way its results are used. The WACC is set at the level considered to be adequate to attract debt and equity into the sector, and no more: it follows that if returns are cut through a process of benchmarking then they are not adequate. Consequently, in the final methodology Ofwat should make it clear that financing costs will not be subject to frontier shift.

Third, although it is stated that the indexation and run-off associated with pre-2020 RCV will be included in revenue allowances, it is not clear what calculations and judgements will be involved in implementing this proposal. The supplementary document presents results from modelling that Ofwat has carried out, but the calculation steps on which the example allowed revenues are based have not been disclosed. It would be helpful if companies could see exactly how it is proposed to apply the methodological decisions presented in the paper.

Q3.3- Do you have any suggestions on how our approach to PR24 quality enhancements could be implemented in a way that achieves our objectives whilst addressing the concerns raised by stakeholders?

We understand the objectives that have been set out and the trade-offs involved and offer the following comments.

Uncertainty as to how quality enhancements will be treated in the future should be minimised. This implies a clear statement from Ofwat on the approach it plans to take in the future. In order to accord such a statement sufficient status it should be made in (or annexed to) companies' formal determination letters in December 2024. It should be candid as to the circumstances under which further allowance would be made at PR29 and how, and more importantly the circumstances under which it would not (e.g if it were considered that the base models adequately captured the issue in question). If there is a possibility that assets created as enhancement during AMP8 will be partially or fully stranded, e.g because of technological progress or market activity, the statement should make that clear.

The process for allowing the costs at PR29 should be transparent, which will enable companies and their investors to take an informed view of the commercial risks they face, but at least the scope for perceived regulatory risk will be limited.

Q3.4- Do you agree with, or have any comments on, the degree of regulatory protection we propose for pre-2020 RCV? Do you agree with our proposal to implement option 1 to achieve this?

In order to provide the expected degree of regulatory protection for pre-2020 RCV it will be necessary to treat it in the same way as the wastewater network plus RCV. This means:

- applying no adjustments to the RCV itself (e.g frontier shift as outlined in 2.1) other than the normal annual indexation/run-off calculations; and
- allowing the full return on capital and return *of* capital (i.e run-off) in allowed revenues, without adjustment.

As noted above, any adjustments that are made as part of regulatory methodology will be viewed by investors as a change in risk, which would necessitate a change in required returns to compensate.

Q3.5- Do you agree with, or have any comments on, our updated proposals for modelling financing costs in our benchmarking models?

We welcome the updated proposal to use the PR24 post-tax WACC for the calculation of the financing costs. The change in approach for the inclusion of the PR24 WACC in the econometric modelling require a change in the application of the efficiency challenge. The WACC set at the price review is the efficient cost of capital for companies and therefore it is inappropriate to apply a subsequent frontier shift to these costs. Therefore, when applying this factor, the cost of capital component should be removed.

It should also be noted that the PR24 post-tax WACC to be used for bioresources may differ from that used for the other wholesale controls. Depending on how several of the issues raised in this consultation are resolved for the final methodology it is possible that the risk characteristics of the bioresources business may be fundamentally different from those of the rest of the business, which could necessitate a different, higher, allowed rate of return. As Ofwat is aware, the required rate of return is a function of the project for which the finance is required, not the entity that is raising the money, so the application of a uniform WACC across bioresources and the rest of the value chain could embed a cross-subsidy in favour of bioresources which would be inconsistent with the objective of aligning the approach to regulatory price controls as close as possible to the wider sludge market.

Q3.6- Do you agree with, or have any comments on, our proposals in relation to managing volume risk? Do you agree with our preferred option, that is, option 2?

First, if option 3, the fully reformed approach is progressed, then as outlined in Appendix 4 of the PR24 draft methodology consultation the approach allows for the estimation of a unit cost which can be applied to actual sludge volumes. The change in approach eliminates the requirement for sludge forecast, except in a limited number of circumstances. Given the limited impact of sludge forecasts a forecasting incentive mechanism is not required. We support the simplification of the framework where appropriate and this is a potential area.

Second, given the significant weight in bioresources cost structures of costs that are, at least in the short term, fixed, the application of an average revenue control exposes companies to significant volume risk. One way of addressing this is by means of caps and collars that share the risk with customers beyond a specified threshold. However, this adds yet further complexity to the regulatory regime, and would not be straightforward to design and implement. An alternative way of addressing it is by recognising it by means of adjustments to the allowed rate of return on capital.

Q3.7- Do you agree with, or have any comments on, our proposals to make a separate adjustment for tax?

The PR24 draft methodology proposed that separate tax allowances are calculated for each wholesale control as if they represented distinct stand-alone entities but the rationale for this is not explained. We do not support this proposal: tax is calculated at a company level and the introduction of hypothetical tax calculations for each control introduces unnecessary complexity and is potentially arbitrary. This is evidenced in the draft business plan tables which presently require companies to postulate opening tax positions for each price control. Tax should be calculated at the company level and allocated to each price control for the inclusion in allowances.

Q3.8- Do you agree with, or have any comments on, our proposal to continue to refer to the post-2020 asset base as RCV? Summary of potential impacts of different options

We disagree with this proposal. RCV is widely understood to be the capital value on which regulators allow a market rate of return when setting price/revenue controls. Under the proposed approach bioresources "RCV" would no longer play that role, so it would be misleading to refer to it as such, or to aggregate "true" RCV and bioresources "RCV" into a whole number for the purposes of calculating financial ratios.

If, as proposed, it is intended in effect to abandon the use of the RCV in setting controls for bioresources (notwithstanding that the legacy pre-2020 "true" RCV may take a while to be fully "run-off", we think Ofwat has two choices, either:

- apply the same approach as was used for the retail business at PR14, i.e fold the bioresources RCV into wastewater network plus and net off allowed bioresources profits from the allowed return in network plus; or
- discontinue the calculation and reporting of, the bioresources RCV altogether, bearing in mind in particular that, under Ofwat's proposals, net MEAV will play a more prominent role in regulatory methodology and reporting going forwards, and provides a source of information for investors and creditors.

However, there is no getting away from the fact that moving away from RCV-based regulation for bioresources is a significant step and will have consequences, possibly significant, which should be carefully evaluated. Neither the December consultation or the draft methodology address this issue.

Q3.9- Do you have any comments on our option assessment in the annex?

We generally agree with the broad framework for the option assessment presented in the annex, but we do not agree with the conclusion. Ofwat expresses a preference for option 3 because it "best achieves our objectives". It acknowledges that "there are some downsides to this approach in terms of practicality". It also says that option 3 "has potentially more implementation challenges" that need to be "addressed appropriately", but that the September 2022 supplementary document would "clarify how our proposals could work in practice and provide some example model results".

We agree that option 3 poses a wide range of practical and implementation challenges as well as some significant policy issues too. The supplementary document provides information on the data that can be used and initial modelling results. We would welcome further detail on the calculation of the allowed revenues under the different options. A wider strategic vision for bioresources is required to appropriately assess option 3. This should include an understanding of how Ofwat sees the subsequent evolution of bioresources regulation as the role of market forces develop. In other words, we would encourage Ofwat to set out a clearer picture of its overall strategy for bioresources, then companies can give a better view of option 3 in that light. It could be that there is support for the ultimate objectives, but different views as to how the sector can best get there.

Of the remaining options we prefer what is referred to in the supplementary document as "option 1+ modelling adjustments". It has the advantage of basing more calculations on hard evidence (as opposed to data that is back-cast or relies on accounting judgements) and would provide a firm basis for taking the next step, whatever that may be, at PR29

QS.1- Do you have any comments on the type of data used for the example model results? Whist recognising the proposed refinements to establishing standardised depreciation in annex 6, do you have further comments on whether RCV and RCV run-off would provide an acceptable and/or more appropriate input to our econometric cost benchmarking models over the 2020 to 2025 period?

We welcome the publication of the data and econometric models alongside the consultation. However, there appear to be anomalies that require exploration and potentially explanation if the results are to be taken forward. The cost data used in the econometric modelling shows that for some companies the modelled costs under option 3 are lower than base expenditure in option 1+ over both the full period and the refined period used in the modelling. *A priori* we would not expect the costs under option 3 to be lower than option 1+ due to the inclusion of financing costs in option 3. This is particularly true over the whole modelling period where we would expect depreciation to be broadly in line with capital maintenance. We also note that costs for one company are c.50% higher under option 3 than option 1+. A deeper understanding is required to understand variances in costs for individual companies between the two approaches.

The December consultations set out two options for depreciation over the 2020-25 period. It is our understanding that the current modelling uses the RCV run-off rate in the calculation of depreciation. We have concerns over the use of the RCV run-off rate within the modelling due to the substantial variation across companies.

QS.2- Do you have any comments on the econometric models and results? How could our models be improved? For example, should we consider alternative specifications or cost drivers?

We welcome the early presentation of the potential econometric modelling under the three different options. We have undertaken an initial review of the models and will continue to review the models.

Overall, we are concerned with the general quality of the models and the results. This may be a function of number of factors including omitted variables, model mis-specification, data consistency/quality (especially in the light of the “back-casting” that has been necessary, significant changes in the underlying cost functions over the modelling period, or one or more of a number of other factors.

We are concerned that the coefficient on the scale variable (sludge produced) which implies that there are diseconomies of scale in the sludge business, and further that these are very acute. For example, in the first model reported in Table 2, the coefficient on sludge produced of 1.242 (with a high level of significance) effectively says that for a 1% increase in sludge production costs rise by 1.24%. Indeed, the acute diseconomies of scale implied by the model results imply that companies

can substantially reduce their costs by sub-dividing their sludge businesses into smaller geographical units, which makes it counter intuitive.

We have considered why it is that the models generally imply diseconomies of scale. The only plausible explanation is that there is a correlation between firm size and inefficiency, i.e. that the assumption that errors are randomly distributed does not hold. Since there are, in effect, only 10 observations, it is not improbable that two or three of the larger companies happen to be relatively inefficient, and two or three of the smaller companies happen to be efficient, thereby effectively "rotating" the estimated cost function and producing the anomalous result that there appear to be acute diseconomies of scale.

We have considered how Ofwat can address this issue in its modelling, especially in the light of the fact that, unlike at PR19, it plans a completely separate efficiency assessment for bioresources, so there is no scope for distortions in one set of models to be compensated by other models within the overall scope of wholesale wastewater. It seems to us that the simplest solution is to apply prior economic and engineering knowledge by imposing a constraint that the cost function cannot return diseconomies of scale, i.e. that the coefficient on a scale variable in an absolute cost model cannot exceed 1, or that the coefficient on scale variable in a unit cost model cannot exceed zero.

In addition, we have concerns with regards to the specification of the models and the counter-intuitive signs and insignificant coefficients. The models account for density and size of works using a number of measures in the models, checks should be undertaken for the impact of multi-collinearity. The econometric model presented for option 3, the fully reformed approach, has a counter intuitive sign for the number of sewage treatment works per connected property. When this variable is removed from the equation the model performs poorly with all variables becoming insignificant. Alternative specifications for the inclusion of density and size of works have been tested but unfortunately these do not perform well under option 3.

QS.3- Do you agree with, or have comments on, the proposed, updated approach to calculating asset values and CCA depreciation as set out in annex 6? In particular, do you: • Agree with, or have any comments on, our proposed approach to calculating GMEAV and the alternative approach considered? • Agree with, or have any comments on, our proposed approach ('gradual unwinding') and alternative approach to estimate changes in the value of the NPV adjustment? • Agree with, or have any comments on, our proposed approach ('bottom-up method) to recording CCA depreciation? • Agree with, or have any comments on, our proposed approach to the rules on asset life assumptions? • Have any comments on the options to generate backcasting estimates of asset values and depreciation?

The proposals represent a shift from a cost assessment framework based principally on expenditure to one that relies extensively on accounting measures of capital costs through depreciation. The proposals therefore introduce potentially significant risk into the framework as it moves from a true cash basis to an approach that includes somewhat subjective costs influenced by accounting assumptions. The complexity of the data and number of assumptions is highlighted within appendix 6 of the consultation. The number of assumptions required, and complexity of the approaches increase the level of risk for both customers and companies.

Agree with, or have any comments on, our proposed approach to calculating GMEAV and the alternative approach considered?

Our initial view is that the alternative calculation of the notional GMEAV is a pragmatic approach as companies will not capture all gross disposals for capital maintenance. However, the proposals highlight the additional assumptions required to model the GMEAV for cost assessment, which increases the data risks in the modelling.

Agree with, or have any comments on, our proposed approach ('gradual unwinding') and alternative approach to estimate changes in the value of the NPV adjustment?

The consultation outlines the proposal that the NPV adjustments are gradually unwound over time 'as the company replaces and updates its assets'. It is unclear why this adjustment is required. The NPV adjustment reflects the difference between a company's actual asset and the hypothetical modern equivalent asset. A company will always have assets that are different to the modern equivalent, so whilst the NPV adjustment may go up and down it will never get unwound unless a company replaces all the assets with a modern equivalent asset at a given point in time. Any investment in the assets will be reflected in the enhancement expenditure and therefore the GMEAV and NMEAV will be updated to reflect the improvement in the asset.

Agree with, or have any comments on, our proposed approach ('bottom-up method) to recording CCA depreciation?

Our provisional view is that we would be able to supply the data going forwards. Processes will need to be established to capture this data as it may not currently be readily available in the format required.

Agree with, or have any comments on, our proposed approach to the rules on asset life assumptions?

As outlined in the consultation under certain circumstances changes to the asset lives could result in excessive costs being charged to customers. We agree that the framework should not allow for this. However, there may be instances where an asset is utilised beyond its assumed asset life. In this instance a mechanism needs to be introduced to ensure companies are funded for additional maintenance beyond the original assumed asset life. The absence of such a mechanism could create perverse incentives for companies to build new assets instead of maintaining current assets.

Have any comments on the options to generate backcasting estimates of asset values and depreciation?

As a general rule, back-casting involves assumptions and judgements, so the resulting data may be subject to a margin of error and needs to be treated with some caution.