

Wessex Water

PR24 CMA redetermination

Base cost modelling paper response

11 January 2026

CONTENTS

1	Summary	1
2	Comments on the CMA's approach	2
	Overarching issues	2
	Concerns with the CMA's process	4
	Specific comments on the CMA's modelling	6
	Conclusion on the CMA's approach	7
3	Our proposed remedies	7
4	Conclusion	11

1 Summary

- 1.1 We are writing in response to the CMA's PR24 base costs modelling working paper of 18 December 2025 ('the working paper').¹
- 1.2 We have serious concerns with the changes made by the CMA to its proposed base cost modelling approach at such a late stage in the process. The proposed approach results in extreme and material changes in the base cost allowances proposed for Wessex Water as compared to the CMA's previous modelling and, in turn, Ofwat's original approach.
- 1.3 We have been clear throughout this process, and in our Statement of Case, that allowances at the level set out in the working paper would be wholly insufficient for us to run our business, and therefore to meet our statutory obligations and deliver the outcomes our customers expect.²
- 1.4 It is our view that the CMA's updated approach to base cost modelling cannot lead to a determination that is consistent with its statutory duties. In that regard, it is not enough for the CMA to conclude that, on average, Disputing Companies are sufficiently funded: the CMA must satisfy itself in respect of each Disputing Company that its approach provides adequate funding to meet each company's statutory obligations, most importantly to the customers in their unique geographic area.
- 1.5 Moreover, we are concerned that the working paper does not set out how the CMA has taken into account Wessex Water's specific submissions regarding the real-world consequences for our customers of setting base cost allowances at this level; nor does the paper provide reasoning as to why such levels should be considered acceptable in respect of Wessex Water.
- 1.6 We are therefore concerned that the CMA has approached its redetermination of base cost allowances without full consideration of the arguments we have made. These arguments have been put forward consistently and in good faith throughout the redetermination process.
- 1.7 We have always maintained, and the CMA itself acknowledges, that no model is perfect. An overreliance on, or overly mechanical application of, econometric benchmarking cannot, on its own, account for the different circumstances of each company, including through time. Indeed, the material revisions to the

¹ Base Costs Modelling – Working Paper, CMA (December 2025).

² Wessex Water, Statement of Case (March 2025), please see paragraphs 5.19 to 5.28 on the scope and consequences of measurement error; and Chapter 8 on base costs.

CMA's base cost modelling illustrate perfectly our substantive concerns with the approach of econometric benchmarking in general.

- 1.8 The CMA must look beyond econometric benchmarking, including beyond triangulation of different econometric models, in order to satisfy itself of a central question that the CMA considers as a part of the redetermination process: is each Disputing Company funded adequately to fulfil its statutory obligations?
- 1.9 We also think it relevant for the CMA, both in determining its approach and in evaluating whether the redetermination outturn is sufficient for Wessex Water to meet its statutory duties, to recognise that Wessex Water – in contrast to other Disputing Companies – received less at Ofwat's FD than it requested across almost every area of the price control. This outcome coincides with a period in which unprecedented investment is required. It is also relevant that econometric benchmarking is widely acknowledged to have significant limitations (e.g. the Independent Water Commission concluded that *"there are fundamental limits to how precise and accurate a benchmarking framework and econometric tools can be"*³).
- 1.10 In this response, we:
- (a) Comment on the CMA's approach in Section 2, in terms of overarching issues with econometric benchmarking, concerns with the CMA's process, and specific comments on the CMA's approach to modelling in the working paper.
 - (b) Propose remedies for addressing our concerns in Section 3. This is consistent with the CMA's recent communication that *"it would be most helpful at this stage to receive proposals that could be implemented within or in conjunction with the updated modelling framework the CMA has set out"*.⁴

2 Comments on the CMA's approach

Overarching issues

- 2.1 As set out in previous submissions and responses, we have two key in-principle issues with the use of econometric benchmarking to set base cost allowances at PR24.

³ Independent Water Commission, Final Report.

⁴ Email received from the CMA on 23 December, Subject: PR24 – Wessex Water's initial response to base cost modelling working paper.

- (a) The historical expenditure data used as an input to the models represents a period of systematic underfunding. Therefore, any econometric model using this data will underfund the notional company. This is consistent with the findings of the Independent Water Commission and other independent reviews.⁵
 - (b) Modelling is inherently limited and, whilst it can be a useful tool to inform views on efficiency, an overly mechanistic application of econometric modelling can result in model error being interpreted as inefficiency.
- 2.2 The reliance on econometric benchmarking has had a disproportionate impact on Wessex Water relative to other companies. The scale of the gap between our proposed water supply base costs and what has been determined by both Ofwat and the CMA is much larger than for other Disputing Companies.
- 2.3 In this context, we have consistently asked Ofwat, and then the CMA, to consider wider or other views as to the appropriate level of base costs. For example, in our Statement of Case we asked the CMA to take “*an appropriate and triangulated approach to its view of the appropriate efficiency*”.⁶
- 2.4 While the CMA’s provisional determination resulted in an increase to our base cost allowances, our response raised concerns with an overly mechanistic application of models, and sector allowances being set below those of Ofwat’s view in the context of historical underfunding. We therefore asked the CMA to “*set base cost allowances that, in the round, properly address the wider critique of underfunding in the industry over previous AMP periods.*”⁷
- 2.5 The significant change in the base cost allowances set out in the working paper, when compared to those in the provisional determinations, emphasises the risk of error that arises from relying on an approach that relies exclusively on econometric benchmarking. In that regard, we note the CMA has not provided an intuitive economic or engineering rationale for either its modelling approach or the modelling outturns. In particular, it is not evident how the revised base cost modelling represents the efficient costs for running Wessex Water’s operations.
- 2.6 The uncertainty and scope for measurement error that comes from seeking to define a single cost function is evident in persistent swings in the estimate of efficient costs each time the models are changed. A framework and approach

⁵ For example, see reports by the Independent Water Commission ([Independent Water Commission: Final Report](#), July 2025), the National Audit Office ([Regulating for investment and outcomes in the water sector](#), April 2025) and the Public Accounts Committee ([Failing water sector left to flounder as piecemeal regulators appear to be missing in action](#), July 2025).

⁶ Wessex Water, Statement of Case (March 2025), paragraph 2.52.

⁷ Wessex Water, Response to the CMA’s Provisional Determination (October 2025), paragraphs 4.13 to 4.17.

that was truly identifying differences between companies as a result of efficiency, rather than modelling error, would be robust to small changes in the specification (e.g. a change in the number of companies).

- 2.7 While we understand that the CMA has undertaken extensive modelling and diagnostic testing in its revised approach, we cannot identify any intuitive explanation for how the modelling relates to the expenditure required to efficiently run our business in the period 2025-2030.

Concerns with the CMA's process

- 2.8 We also have material concerns regarding the process and regulatory practice represented in the CMA's working paper.⁸
- 2.9 First, the CMA's overall approach – the prioritisation approach led to our proposed remedy being discounted and there have been two significant new approaches to modelling that have led to material shifts in allowances, with a very limited window in which to engage.
- 2.10 Second, the working paper is light on detail, which prevents us from engaging fully with the CMA's approach or underlying reasoning – it does not set out to any degree how the CMA has taken into account Wessex Water's specific submissions regarding the real-world consequences for our customers of setting base cost allowances at the level proposed. These points are referenced in Figure 1 below.
- 2.11 Third, the paper does not provide reasoning as to why such levels of expenditure should be considered acceptable in the context of our Statement of Case or with reference to the statutory duties that apply either to the CMA or to Wessex Water.

⁸ In exercising its powers and performing its duties, the CMA is required to have regard to the principles of best regulatory practice as set out in section 2(4) WIA91.

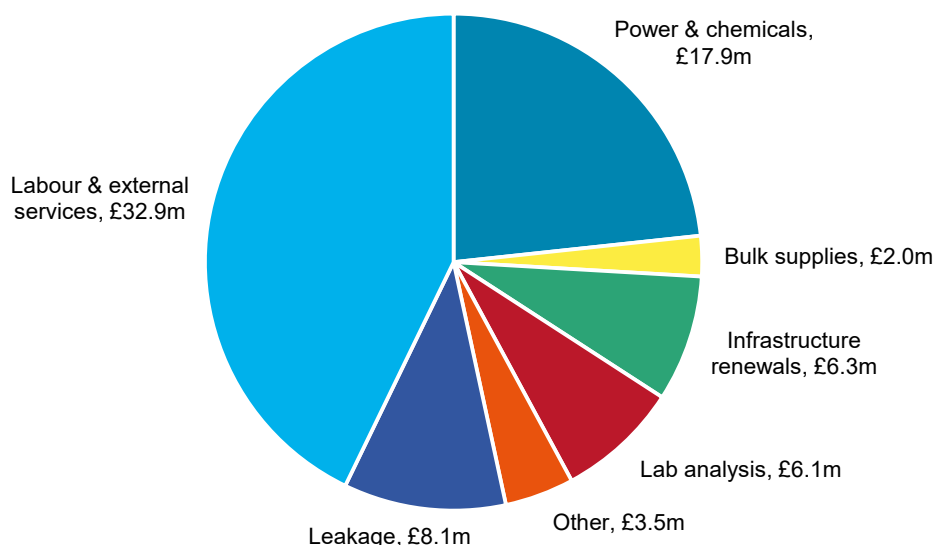
Figure 1: Actual operational costs and comparison with allowances

In the last regulatory year, our water supply operational costs were £76.9m⁹, comprising a range of cost categories as shown in the chart below. By contrast, the CMA's working paper allowance for AMP8 base water supply opex is £56.0m per annum.

Achieving this lower level of operational expenditure, would require a reduction of £20.9m in annual operating expenditure. To put this into context, this would equate to stopping all leakage reduction work and cutting our workforce by nearly 40%. The consequences would be a doubling of leakage levels over the AMP, a significant increase in supply interruptions, and a materially higher risk of supplying unwholesome water – an outcome that customers consistently tell us is their highest priority. As Wessex Water cannot, for example, make power costs zero or stop paying for bulk supplies that are central to our supply resilience, a reduction of around 30% in base cost allowance from one year to the next would create acute operational challenges. It is not clear the CMA has sufficiently considered the real-world operational implications of its modelling outturns.

2024-25 Water Supply Operating Costs

(Modelled items, £m/an 2022-23 prices)



⁹ Total expenditure stated in 2022-23 prices on those items included within the econometric modelling, i.e. excluding unmodelled cost items such as business rates.

Specific comments on the CMA's modelling

- 2.12 Consistent with the issues raised in our Statement of Case with regards to Ofwat's models, the CMA's models point to a counterintuitive position in relation to the results for Wessex Water whereby our implied efficiency varies considerably between the wastewater and water supply models. Our respective scores are 0.91 for wastewater (being the second most efficient WaSC) and 1.20 for water supply (being the second least efficient WaSC) – an efficiency gap between the two services of 0.29. This is despite Wessex Water running both parts of the business in the same way, with the same ownership for over 20 years.¹⁰
- 2.13 The CMA also makes a series of what we consider somewhat arbitrary decisions in its approach, for example regarding which variable to use or how to combine the models. These small changes in the specification have a large impact on the results, again indicating the results are likely to represent, to at least some degree, modelling error rather than inefficiencies. This is, for example, the case for the following elements (which is not an exhaustive list).
- (a) The use of pre-modelling PCA, which conflicts with LASSO objectives.
 - (b) Seemingly inconsistent decisions on whether to use PCA for highly correlated variables, e.g. applying PCA for density and scale but not for water treatment complexity drivers or measures of economies of scale in sewage treatment.
 - (c) The exclusion of certain variables from the modelling process, e.g. `pctwatertreated36`.
 - (d) The treatment of input prices without cross-checking whether alternative methodologies – equally valid in principle – produce consistent cost estimates, e.g. Ofwat previously relied on a CEPA report to conclude that a post-modelling adjustment for energy was the most appropriate method.
 - (e) In some instances, the CMA disregards its own modelling completely, even where its own tests indicate small differences in robustness. For example, the CMA's choice to only use the bottom-up, or top-down models depends exclusively on the RMSEs and represents an overly mechanistic interpretation of the results, particularly on water where the difference in RMSEs is low (33.0 vs 33.1).
 - (f) The treatment and use of energy costs in the models, when it can be demonstrated that other factors were affecting company costs concurrent to the energy shocks. As a result, it is important the CMA panel does not take

¹⁰ We note this divergence in Ofwat's view was not present to the same extent in the period 2000 to 2020.

false comfort from the revised models appearing to explain the large increase in industry base costs over the last AMP. For further discussion of this, please see Economic Insight's paper on "The Treatment of Energy Input Price Inflation in Base Cost Econometric Models" (January 2026).¹¹

Conclusion on the CMA's approach

- 2.14 The working paper represents a material change in both approach and proposed allowances from the position contained in the CMA's provisional determination.
- 2.15 As a result, we have deep concerns that the CMA has not properly engaged with our primary issues or set out sufficient reasoning to allow us to understand the basis for its current proposed approach. Alongside these overarching issues, we also have substantive concerns regarding the CMA's technical approach.
- 2.16 For these reasons, it is our view that the CMA's updated approach to base cost modelling would lead to a determination that is inconsistent with its statutory duties.

3 Our proposed remedies

- 3.1 We raised some of the above concerns in a letter to the CMA immediately after the publication of the working paper.¹² The CMA's response to this suggested that it would be most helpful to receive proposals to address these concerns that could be implemented within or in conjunction with the updated modelling framework the CMA has set out.¹³
- 3.2 Consistent with our Statement of Case, and with the CMA's above response in mind, we propose that a triangulation of appropriate views would be the most appropriate first stage of a remedy in setting base costs in the final determination. This could include the CMA's most recent modelling, or variants of it, but would consider this alongside other relevant evidence.
- 3.3 This would most appropriately recognise that no modelling approach is perfect, and acknowledge the difficulties in developing a single approach that is able to properly reflect the wide range of factors relevant to assessing efficiency.

¹¹ A461 - Economic Insight - "The Treatment of Energy Input Price Inflation in Base Cost Econometric Models", January 2026

¹² Wessex Water, Letter to the CMA, RE: redetermination base cost modelling working paper (December 2025).

¹³ Email received from the CMA on 23 December, Subject: PR24 – Wessex Water's initial response to base cost modelling working paper.

- 3.4 We set out what we consider are the relevant assessments of cost allowances for such a triangulation exercise below, and in Table 1.
- (a) **The base expenditure proposed in our Statement of Case**, which is £244m higher than that in Ofwat's PR24 Determination, and therefore for the purposes of comparison is £1,747m¹⁴. We took care to ensure the cost projections were efficient and they were developed using a combination of deterioration modelling, bottom-up capital expenditure assessment, asset performance data, and risk assessments. For example, we modelled capital maintenance needs based on site and asset specific needs, lifespans, and efficient costs (i.e. market data). This evidence was intended to ensure, in the context of our concerns regarding the likely historical underfunding, that the asset management and engineering expertise of the company was appropriately reflected in the cost allowances.
 - (b) **Our current run-rate expenditure** based on average capital maintenance for AMP7 and opex in year 2024-25, which is £1,664m. As we set out in our Statement of Case, the current run-rate projected over the AMP would not account for important expenditure needed to maintain our network in a way that accounts for historical underfunding.
 - (c) **Modelling approaches:**
 - (i) The allowance set in Ofwat's PR24 final determination using its separate modelling approach. This is £1,503m, which we highlight is still 14% below the expenditure proposed in our Statement of Case.
 - (ii) The allowance set in the CMA's working paper, using its most recent approach. This is £1,427m, which we highlight is still 18% below the expenditure proposed in our Statement of Case.
 - (iii) Allowances which would be determined under the CMA's approach using its bottom-up econometric models in addition to top-down econometric models, which would be £1,525m, which we highlight is still 13% below the expenditure proposed in our Statement of Case. Including this view in a triangulation exercise would somewhat address some of the concerns raised in para 2.6 above, regarding the impact of judgement in the CMA's approach.

¹⁴ Given how base cost allowances are calculated from modelled costs, and for the purposes of an illustrative comparison, this is reported as the modelled costs under Ofwat's FD in the CMA's working paper plus the £244m additional allowances requested in our Statement of Case.

Table 1: Illustrative summary of methodologies available for triangulation (£m)

	View	Water	Wastewater	Total
Wessex	Statement of Case	774	973	1,747
	Current run-rate expenditure	670	995	1,664
Ofwat	PR24 final determination	530	973	1,503
CMA	Top-down models (as per the allowance in the working paper)	529	898	1,427
	Bottom-up models (as included in the CMA's working paper but not used in setting allowances)	549	976	1,525

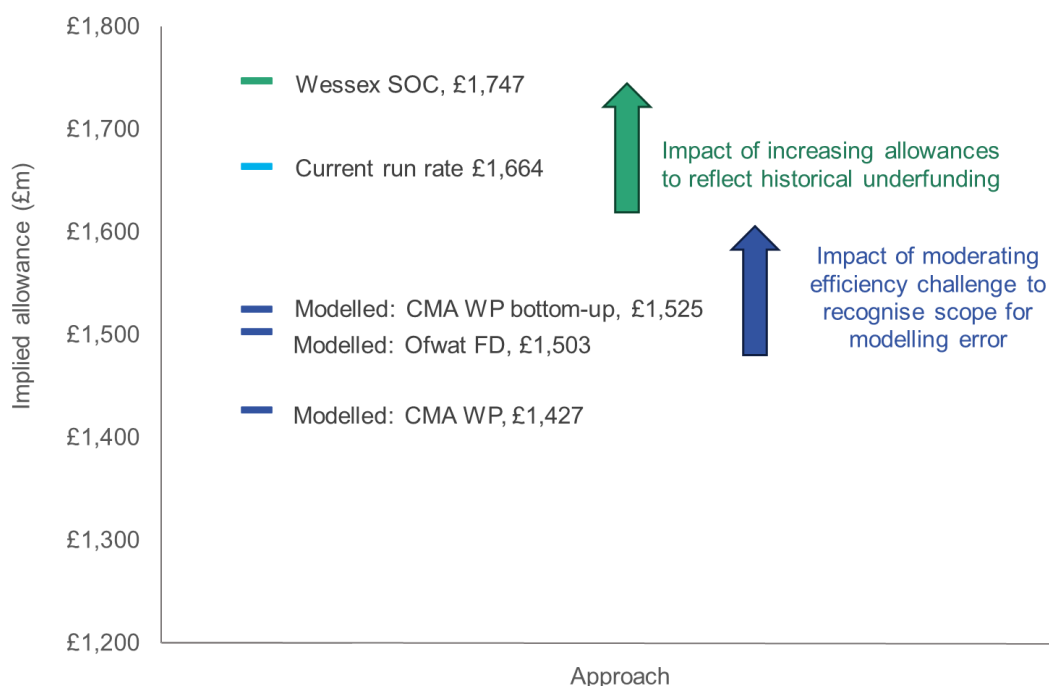
- 3.5 A triangulation of approaches, considering the above, would recognise the uncertainty in modelling efficient costs and give appropriate weight to the various methodologies for doing so. This would be in contrast to both Ofwat's final determination and the CMA's provisional determination, which placed 100% weighting on modelled approaches and 0% weighting on engineering evidence. We do not believe that Ofwat or the CMA should have zero-weighted the latter.
- 3.6 In addition to, or in the absence of a triangulated approach, we consider the CMA could also employ the following.
- (a) Recognising the scope for modelling error, **moderate the efficiency challenge to the median level**. This approach would be particularly applicable to outliers in the CMA's modelling, where there may be more error in relation to the model's ability to predict the efficient costs.
 - (b) **Uplift the modelled cost allowances to compensate for historical underfunding** (supported by an enhanced cost sharing rate to protect customers). This is consistent with the approach taken by the Water Industry Commission for Scotland (WICS) in the SRC21 final determination¹⁵ which increased spending by 80%-123% compared to historical levels to address concerns relating to historical underfunding.¹⁶

¹⁵ WICS (2020) Final Determination - Strategic review of charges 2021-27, provided as SoC Appendix A221.

¹⁶ As previously raised, in our view for the CMA to meet its duties, it needs to provide what it believes is the right cost allowance in its FD rather than delegate this back to Ofwat and its Asset Health Roadmap.

3.7 A summary of our combined proposals is illustrated in Figure 2 below.

Figure 2: Summary of relevant methodologies



3.8 To remedy the issues we have raised, the CMA has broad discretion in how it determines base cost allowances. We believe the CMA must reconsider its approach to ensure it leads to a determination that is consistent with its statutory duties. This could include some combination of the following approaches we have proposed in this response:

- (a) triangulate between the various methodologies and views on efficiency;
- (b) moderate the modelled efficiency challenge by applying a glidepath and/or choosing a median efficiency frontier (recognising the limitations in modelling and the input data); and
- (c) provide an uplift for historical underfunding, supported by appropriate customer protections.

3.9 Finally, we note that in all such scenarios, energy costs will have to be appropriately considered. For views on how this should be considered in the CMA's most recent modelling approach, please see Economic Insight's paper on "The Treatment of Energy Input Price Inflation in Base Cost Econometric Models" (January 2026).¹⁷

¹⁷ A461 - Economic Insight - "The Treatment of Energy Input Price Inflation in Base Cost Econometric Models", January 2026

4 Conclusion

- 4.1 The CMA sets out that the basic aim of econometric benchmarking is to “*predict efficient costs so companies can fund their day-to-day activities, without customers overpaying where customers are inefficient*”.¹⁸ However, the approach set out in the working paper falls well short of achieving this basic aim for our business.
- 4.2 We therefore urge the CMA to reconsider its approach to base cost modelling to ensure it results in a determination that is consistent with its statutory duties. In doing so, the CMA must critically evaluate whether the outcomes of its modelling result in allowances that are sufficient to ensure that each Disputing Company is funded adequately to fulfil its statutory obligations.
- 4.3 We welcome the opportunity to engage via this working paper and, even at this late stage of the process, encourage the CMA to continue to ensure that interested parties, including Wessex Water, are adequately consulted with respect to any changes in approach that have a material impact on the final determinations.

Table 2: Summary of supporting documents submitted alongside response

Name	Date	Context	Position
A460 - CMA WP Response Databook	January 2026	Values and sources for tables and figures in report	Wessex Water Databook
A461 - Economic Insight "The Treatment of Energy Input Price Inflation in Base Cost Econometric Models"	January 2026	Consultancy report	External document

¹⁸ Base Costs Modelling – Working Paper, CMA (December 2025), paragraph 1.7.