

By email: waterpr24references@cma.gov.uk

Kirstin Baker
Chair of CMA Panel on PR24 redeterminations
Competition and Markets Authority

9 January 2026

Dear Kirstin,

We welcome the opportunity to comment on the recently published base modelling paper, an important part of the redetermination process.

We have commissioned Economic Insight to help support our response to the paper, and this is included as an annex to this letter.

We recognise that the CMA has taken the opportunity to consider and test modelling approaches that are different to those that Ofwat has taken in recent price reviews.

However, the CMA approach has resulted in proposed allowances that are not intuitive, produce significantly different results following minor adjustments, and overall reduce the level of base funding for the industry. This is at odds with the facts that companies are overspending allowances while not meeting targets and incurring penalties for doing so. This indicates a level of historic underfunding, rather than overfunding, which is the intuition from the CMA outputs.

We contrast this with Ofwat's models which have been developed over many years, in consultation with companies and wider engagement with stakeholders. These models now produce consistent results that are in line with expectation, within a process that allows for adjustment where judgement is required.

We consider the CMA's work in this area has provided strong support for the recommendations of the IWC, that the industry needs to move away from a

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purely econometric approach to setting allowances, and apply a greater proportion of weight to judgement and individual circumstances, building on the outputs from existing Ofwat models.

We would be happy to discuss our views in more detail if that would be helpful to the panel.

Yours sincerely

Liv Walton
Director of Regulation and Strategy

Response to CMA base costs working paper

Prepared on behalf of Affinity Water

06 January 2026

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Introduction and Executive Summary

On 18th December 2025, the CMA published a working paper, consulting on its approach to base cost modelling under the PR24 redeterminations. The CMA stated that the scope of the consultation is limited to the implementation of wholesale water and wastewater econometric benchmarking models (and a subset of company cost adjustment claims relating to them).

Affinity Water (Affinity) asked us to support its response to the consultation by preparing this short paper, in which we address three topics: (i) consideration of whether the results are logical; (ii) modelling does not remove the need for regulatory judgement; and (iii) the importance of intuition and interpretation.

Consideration of whether the end results are logical

A notable feature of the CMA's updated base cost modelling is that it results in lower modelled base allowances, relative to Ofwat's PR24 Final Determinations (FDs). Once catch-up factors are applied, the CMA's modelling results in a reduction in modelled based costs, which the CMA recognises: *"our models produce allowances that are 7.1% lower sector-wide and 4.8% lower for Disputing Companies than Ofwat's PR24 FD."*¹

As shown in Table 1, not only does the CMA allow less modelled base costs than Ofwat, but the extent of the reduction under its working paper is significant. The disputing companies are provisionally allowed £543m less than under Ofwat's FDs; and the industry as a whole is allowed nearly £3bn less (water and wastewater combined).

Table 1: Summary of CMA modelled base allowances relative to Ofwat's FD – water and wastewater combined (£m)

	Ofwat PR24 FD	CMA working paper	Difference
Disputing companies	£11,280	£10,737	-£543
Industry	£41,542	£38,579	-£2,963

Source: CMA working paper

We recognise that a redetermination represents a de-novo reassessment of the PR24 price control. As such, the CMA is able to take a different view to Ofwat as to method, and resultant allowed revenues. In turn, this means there is no inherent presumption that allowances (either overall revenues, or in relation to any one building block) should be higher (or lower) for disputing companies under a CMA redetermination. However, in the context of the PR24 redeterminations *specifically*, and the available evidence to inform them, the above results relating to base costs are, in our view, implausible.

¹ *'Base Costs Modelling – Working Paper.'* CMA (December 2025); paragraph 1.9.

- The Cunliffe Review reached the clear conclusion that the water industry had been underfunded in the past, in turn resulting in underinvestment. This led to a recommendation that *“the [new] regulator needs to ensure water infrastructure requirements are adequately and reliably funded over time.”*² Cunliffe further ascribed this outcome, in part, to *“government and regulator pressure”* to keep bills low.³ Moreover, of relevance to base costs, Cunliffe highlighted that the prior regulatory model had certain incentives (and levers) that could contribute both to an under-allowance of base costs, and underspending by companies, particularly in relation to capital maintenance (repeatedly highlighting concerns over asset health).⁴
- All companies have overspent the AMP7 base costs allowances, with the vast majority also incurring net ODI penalties.⁵ This sector-wide picture is incompatible with a conclusion that base allowances were adequate and that underperformance was the result of inefficiency. Moreover, companies that overspent materially include those the CMA itself assesses to be relatively efficient, under its revised models.⁶

The logical inference to be drawn from the above is that appropriately calibrated base costs allowances at PR24 both need to ‘correct for’ (make up any shortfall in) historical under-funding, whilst also ensuring they are appropriate in terms of being sustainable on a forward-looking basis.

Modelling cannot remove the need for regulatory judgement

In its working paper, the CMA makes statements that recognise the limitations of econometric modelling: *“no econometric model will perfectly capture the complexities of the industry and regulators must therefore use judgement to pick a model that in the round performs best.”*⁷

Notwithstanding the above, in practice the CMA’s approach is one that: (i) places considerable weight on its econometric models; and (ii) appears to rely on a view that certain analytical techniques can lead to ‘objectively better’ choices (in terms of variable selection) and end results (possibly indicating that insufficient consideration has been given to what judgements may need to be made, or are being *implicitly made*, under its modelling).

In relation to (ii), the CMA describes its revised modelling approach as being an improvement (relative to its PD models), the benefits being: *“improved predictive accuracy, simpler cost models, and a transparent data-driven approach to select cost drivers.”*⁸ Consistent with this, in response to issues raised by the disputing companies regarding certain limitations of its modelling at PDs, the CMA has inserted additional analytical steps. These include principal component analysis – PCA – (to mitigate multicollinearity); and bootstrap LASSO (to inform variable selection stability). Setting aside the relative merits of said steps, which we do not comment on here, their additions do not intrinsically make modelling choices more objective.

More broadly, the high level of trust the CMA has placed in a small number of econometric models runs contrary to the Cunliffe Review, who found that: *“Ofwat has relied too heavily on a data driven,*

² *‘Independent Water Commission Final Report.’ (July 2025); paragraph 450.*

³ *‘Independent Water Commission Final Report.’ (July 2025); box 26.*

⁴ *‘Independent Water Commission Final Report.’ (July 2025); paragraph 450. Cunliffe discusses concerns over the totex regime and the RCV run-off rate.*

⁵ *For example, see Figure 8 of Anglian’s statement of case.*

⁶ *The CMA’s revised models identify Anglian and Yorkshire and being the UQ firms under its latest models, both of whom materially overspent their base cost allowances at AMP7.*

⁷ *‘Base Costs Modelling – Working Paper.’ CMA (December 2025); paragraph 1.7.*

⁸ *‘Base Costs Modelling – Working Paper.’ CMA (December 2025); paragraph 1.6.*

econometric approach,⁹ and so recommended that less weight should be placed on such techniques in future.

The importance of intuition and interpretability

Consistent with the CMA taking a ‘data-driven’ approach to its econometric modelling, it has been explicit that intuition and interpretability are, in its view, less important (relative to technical robustness).

In relation to the role of interpretability in general, the CMA states: *“we also emphasise that, while interpretability can provide a useful sense check, we consider that it is not the primary objective of benchmarking. The primary objective is to deliver accurate cost predictions and to identify relative efficiency across companies.”*¹⁰

In relation to the interpretation of certain coefficients (particularly in the context of the use of the PCA technique) the CMA states: *“It is however important to recognise that, in the presence of potential multicollinearity between sets of variables, limited weight should be placed on the interpretation of individual model coefficients. While the use of PCA helps to mitigate some of the issues associated with highly correlated variables, it does not fully eliminate the underlying dependencies within the data. As a result, the estimated coefficients may not always provide a clear or unique economic interpretation. For this reason, our modelling approach places greater emphasis on the overall predictive performance and robustness of the model, rather than on the interpretation of specific parameter estimates.”*¹¹

The reason intuition and interpretation are important is that they go to the heart of what one is attempting to measure: relative efficiency. This requires both that any variable being included is a relevant driver of company base costs, and is also outside of efficient management control. A clear in-principle risk with placing insufficient weight on interpretation, and linked to the use of PCA, is that one might inadvertently conflate the (concurrent) impact of multiple factors (cost drivers) on company costs within the inclusion of a single variable. Moreover, because both: (i) the extent to which those various drivers are within management control, and (ii) companies’ relative efficiency, might themselves vary across said drivers, there is an in-principle risk that the consequence is an unreliable assessment of relative efficiency (i.e., one cannot ‘assume away’ the problem of variables with counter-intuitive coefficients/interpretations).

In summary, whilst we would agree with the CMA that the technical robustness of any analytical approach used to assess efficiency is also important, we would disagree that interpretability serves only as a *“useful cross check.”* Put simply, if one cannot be sufficiently sure ‘what’ one is measuring in any statistical modelling, one can similarly not be confident that the results are reliable for their intended purpose. Therefore, the ability of a model to *“identify relative efficiency across companies”* (a stated objective of the CMA’s modelling) cannot be decoupled from interpretability.

⁹ *Independent Water Commission Final Report*, (July 2025); paragraph 417.

¹⁰ *Base Costs Modelling – Working Paper*, CMA (December 2025); paragraph 2.15.

¹¹ *Base Costs Modelling – Working Paper*, CMA (December 2025); paragraph 2.22.

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