

Meeting note

Thursday 15 July 2021
11:00 am to 1:30 pm

Cost assessment working group (CAWG)

Attendees

Anglian Water	Richard Goodwin
Dŵr Cymru	Charlotte Beale
Hafren Dyfrdwy	Kristinn Mason
Northumbrian Water	Crawford Winton
Severn Trent Water	Rob Holdway
South West Water	Judith Corbyn
Southern Water	Kevin Wightman
Thames Water	Carlos Pineda Bermudez
Thames Water	Stela Bagasheva
United Utilities	Sam Crook
United Utilities	Jon Latore
Wessex Water	David Peacock
Yorkshire Water	Mick Hanley
Affinity Water	Nicky Fomes
Bristol Water	James Holman
Portsmouth Water	Steve Morley
SES Water	Van Dang
South East Water	Tim Charlesworth
South Staffs Water	Daniel Haire
Ofwat	Tim Griffiths, Daniel Mitchell, Beckie Paterson, Jake Wood, Dave Watson, Jennie Seymour, Matt Greetham, Stewart Loftus

Introduction

Ofwat opened the meeting, introduced the team, and set out the agenda:

- Cost assessment principles
- Scope of modelled base costs
- Base cost drivers and explanatory variables
- Next steps

Cost assessment principles

Ofwat talked through the approach to cost assessment econometric modelling at PR19 “our emphasis was to develop models that were consistent with engineering, operational and economic understanding of cost drivers”.

United Utilities then presented an overview of its first paper in a series of cost assessment papers that it intends to contribute to the Future Ideas Lab. The first paper identified 6 key principles of cost assessment, which have been shaped from its reflections on cost assessment at PR19, and the challenges that lie ahead at PR24.

Questions discussed in breakout groups:

- Do you agree with the 6 principles identified by United Utilities?
- Are there any important principles missing?

Feedback from discussion groups

- Overall, there was reasonably strong support for the principles of good cost assessment identified by United Utilities.
- A number of companies stressed the importance of ensuring that the historical cost models accurately predict forecast cost trends. There was a concern that the historical cost models may not capture and explain possible step-changes in base costs at PR24 and beyond (eg net zero).
- The criteria for endogenous and exogenous cost drivers / explanatory variables should be carefully defined given that the majority of cost drivers are somewhat endogenous.
- The econometric cost models need to fit within the overall cost assessment framework, alongside other tools and approaches (eg cost adjustment claims, business plan deep dives).
- General agreement that economic and engineering rationale should underpin the cost models. But some companies questioned the value of triangulating between very similar cost models. One company suggested that more weight should be placed on different demographics between companies when developing cost models as it

considers it is one of the most important cost drivers, particularly in wastewater (eg colocation).

- The ‘sensibly simple’ modelling approach taken at PR19 was welcomed by some companies as it provided more transparency and clarity compared to PR14, which avoided excessive regulatory burden.
- Some companies suggested that the base cost models could have a stronger economic rationale, although other companies considered that engineering rationale was just as, if not more, important.
- One company agreed that surface water drainage drives costs, but it did not necessarily think it should be its own service as it is part of the network and every wastewater company has to deal with it.
- One group suggested exploring the use of different levels of disaggregation rather than focusing only on company level data. Using company level data can be very different to individual catchment / treatment works data. Looking at data from regions, networks or systems may help to explain cost variations (eg treatment complexity).

Scope of modelled base costs

Ofwat talked through the scope of wholesale modelled base costs at PR19, and the approach taken at PR19 to decide what costs are included in the base cost econometric models. A comparison was then made to the scope of modelled costs applied by Ofgem at RIIO-GD2.

Severn Trent then presented an overview of a paper it intends to submit to the Future Ideas Lab titled “A Framework for Testing Changes to Model Scope”.

Questions discussed in breakout groups:

- What approach should be taken to decide what costs are included in / excluded from the wholesale base cost models?
 - PR19 approach
 - Ofgem RIIO-GD2 approach – start with totex and excluded costs based on assessment criteria
- Should any costs that were included in the base cost models at PR19 be excluded from the base cost models at PR24?
- Should any costs that were excluded in the base cost models at PR19 be included from the base cost models at PR24?
- Do you think a totex modelling approach could be a helpful addition to the cost assessment toolkit at PR24?

Feedback from discussion groups

- There was a general agreement that a totex modelling approach is unlikely to be appropriate for the water sector due to the nature of the asset base and size / lumpiness of enhancement expenditure. The feedback from the CMA on the PR14 totex models was highlighted as a possible reason not to revisit totex modelling. But some companies did say that totex models could be used as a sense check.
- There was a general agreement with the approach / framework proposed by Severn Trent to decide on the scope of modelled base costs (ie line-by-line assessment).
- Some companies thought that some of the enhancement cost models were not particularly strong at PR19, and it may be appropriate to include some additional enhancement expenditure lines if they can be explained by the base cost drivers.
- Other companies identified the need to reassess whether growth related expenditure (including sewer flooding) should be removed from the base cost models at PR24 and assessed separately.
- The need for a clear distinction between base and enhancement expenditure was also raised. Particularly as the cost of maintaining service may change with future factors (eg net zero, climate change, and growth).
- There was a general agreement that the scope of unmodelled base costs should not be changed at PR24.

Base cost drivers and explanatory variables

Ofwat talked through the PR19 wholesale base cost drivers and explanatory variables, including those that were considered but were ultimately not included in the final model selection.

Thames Water then presented its thoughts on potential additional / alternative wholesale base cost drivers and explanatory variables to consider at PR24.

Thames water presented ideas on:

- Regional wages
- Economics approach (ie capital stock and price of capital)
- Scale / output drivers
- Technological change
- More environmental cost drivers

Ofwat stated that wholesale enhancement and residential retail cost drivers and explanatory variables will be explored at future CAWGs.

Questions discussed in breakout groups:

- Do you have any feedback on the cost drivers and explanatory variables included in the PR19 base cost models?
- Do you think any of the explanatory variables that were tested at PR19 but not included in the final model selection should be reassessed at PR24?
- What alternative or additional cost drivers should we consider for PR24 (and subsequently collect data on)?
- Do you have any comments on Thames Water's cost driver suggestions?

Feedback from discussion groups

- Views were varied amongst the discussion groups.
- A number of companies welcomed the improvements to the cost models at PR19, which had a clear economic and engineering rationale. But some companies said there may be value in revisiting the density / demographic and treatment complexity cost drivers (ie appropriate thresholds).
- Some companies questioned the appropriateness of capturing regional wages in the cost models given data issues experienced at PR19. Maybe more of a company / regional specific issue that may be best considered outside of the models.
- Some companies questioned the appropriateness of including capital stock and the price of capital in the cost models as this would lead to a very different approach and interpretation, and may risk rewarding companies with large networks. It would also be a resource intensive and challenging exercise to value assets again (ie modern equivalent asset value).
- Data maturity is important when considering possible cost drivers and explanatory variables. While data may not currently be sufficiently robust in some cases (eg average pumping head – reporting inconsistency is a concern as the variable has a clear engineering rationale and should perform well in the models in principle), it is important to work collectively to improve data quality in the long term (eg definition refinement). Additional data requirements must also be collected ahead of time to ensure that reporting inconsistencies can be removed before it is used.
- One company said that drainage is a material cost driver for some companies and should be considered when assessing wholesale wastewater costs.
- One company also said that it is the level of phosphorus removed rather than consent that drives costs (eg if a consent says remove to 4 mg/l but the incoming water is only 5mg/l, this will clearly be cheaper than incoming water of 10mg/l). It may be challenging to report data on p-removed, however.
- It was noted that data is collected by Ofwat on large sewage treatment works (STWs) but is not currently being used despite large STWs treating around 85% of total load.
- Some companies welcomed the consideration of environmental cost drivers but others questioned the relative importance compared with the cost drivers in the PR19 wholesale base cost models. One company also noted the impact on electricity costs of

buying green energy. More generally, companies highlighted the need to identify and consider long-term cost drivers and collect data if not already collected.

- The use of variables to capture temporal effects was also discussed (eg time trends and/or time dummies).
- The cost of regulation was also noted as a cost driver.
- In one session, a couple of companies thought the PR19 models may have been too simplistic and questioned the decision not to use the translog functional form to capture varying economies of scale.
- Revisiting how population sparsity / density is captured in the models was also discussed. Some companies have varying degrees of population density within their operating region, which may not be captured using standard density measures (eg a large number of small conurbations). One company also noted that population density can vary across the year for areas of England and Wales that are popular tourist destinations (ie holiday homes), which may not be picked up by the density measures but does drive higher costs (eg meeting peak demand).

Next steps

Ofwat presented the proposal to hold an additional CAWG on the afternoon of Thursday 19 August in relation to residential retail cost assessment. No comments were made on the proposed workshop. But one company mentioned in the breakout discussions that it thought the residential retail models were relatively weak compared to the wholesale base cost models. Issues were raised around the use of dual customers, which companies thought represented a wastewater customer instead of a water only company; and deprivation costs, which they said varied across companies.

Ofwat also set out the provisional list of topics to be discussed at the CAWG on the 7 September (cost adjustment claims, resolving data issues and quality assurance processes, and cost-service interlinkages); and a longer list of topics to discuss at future CAWGs. We asked companies to let us know if they would like to present on any topics at forthcoming CAWGs.

Ofwat then set out the working timetable for wholesale base cost assessment:

- CAWGs every 4 to 6 weeks.
- Cost assessment strategy and data request (ie new cost drivers / explanatory variables) consultation in Nov/Dec 2021.
- We are considering whether it would be possible to publish the wholesale base cost models early, but that will very much depend on a number of factors. We will keep companies informed along the way.

To close the CAWG, we invited final comments and questions from companies. There was generally a mixed response to holding the next CAWG in-person, so the August and

September CAWGs will remain remote workshops via Microsoft Teams. But we will keep this under review.