Centre City Tower, 7 Hill Street, Birmingham B5 4UA
21 Bloomsbury Street, London WC1B 3HF

Meeting note

Tuesday 7 September 2021
1:00 pm to 3:00 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	Michael Kearns
Thames Water	Carlos Pineda Bermudez
United Utilities	Sam Crook
Wessex Water	David Peacock
Wessex Water	Harriet Cutts
Yorkshire Water	Daniel Chubb
Affinity Water	Martin Hall
Affinity Water	Zayn Ahmed
Bristol Water	George Clarke
SES Water	Van Dang
South East Water	Tim Charlesworth
South East Water	Matt Hersey
South Staffs Water	Daniel Haire
Ofwat	Tim Griffiths, Daniel Mitchell, Paul Martin, Simon Harrow, Gilda Romano, Beckie Paterson, Jake Wood, Dave Watson, Shivani Lad, Stewart Loftus

Introduction

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

- Average pumping head
- Number of connected properties
- Ensuring quality data
- Closing remarks

Average pumping head

Ofwat presented a recap on average pumping head (APH) in terms of definition, rationale, historical use in cost assessment, and ongoing data issues. Ofwat also set out what the current plan is with regards to APH.

Ofwat stated that the CMA in the PR19 redeterminations agreed that APH makes sense from an engineering and economic perspective but recognised significant concerns regarding data quality and statistical significance. As a result, the CMA decided that APH should not be included as an explanatory variable in the econometric models as a "superior alternative was available" (i.e., boosters per km of mains). Ofwat therefore reiterated the importance of improving APH data quality if APH is to be seriously considered as an explanatory variable in the wholesale base cost models at PR24.

South Staffs Water and Anglian Water presented on how APH data quality could be improved along with other related issues.

South Staffs Water outlined three potential improvements with regards to APH:

- Deep dive/evaluate APH calculation methods across companies to try and determine whether there are material deviations in the methods used and whether they influence the results.
- Capture re-pumped volume for each company because it is currently a missing explanatory factor in distribution power costs.
- Capture explanatory factors to explain variation in APH (e.g., map elevation data to explain regional topography; use borehole level data to bolster abstraction APH data; explanation of which company treatment processes have a high-pressure overhead).

Anglian Water also suggested an APH deep dive, and proposed following the approach taken to ensure consistent reporting against new AMP7 Performance Commitments. Anglian Water thought this approach would ensure consistent reporting between companies in the long-run, with the aim of all companies being fully compliant by the end of AMP7.

Questions discussed in breakout groups were divided into two sections.

APH Data Quality

- What are the main factors causing APH reporting inconsistencies between companies and over time?
- Which components of APH are more likely to be causing reporting inconsistencies / issues?
- How can we eliminate / reduce APH reporting inconsistencies/issues?

Including APH in econometric cost models

- Does APH need to be weighted by 'total measured volume of water pumped' to be included in the econometric models?
- How can we ensure that the inclusion of APH in the econometric models does not lead to perverse incentives given there are opportunities to optimise APH (i.e., endogenous)?

Feedback from discussion groups

APH Data Quality

Main factors causing reporting inconsistencies

- APH is a complex calculation, and the inputs that are used to calculate APH may sometimes be estimated rather than measured, which could affect the accuracy of the data and cause reporting inconsistencies.
- Annual mean head (lift) is likely to be the main component causing inconsistencies as it is a complex calculation and needs to be calculated by site and then averaged across all sites based on volumes. In addition, it may not always be measured but estimated (therefore static). Volumes tend to be well measured and therefore accurate.
- APH definitions have evolved over time. This may have led to some companies having a better understanding of the definition that others, which could lead to reporting inconsistencies (both between companies and over time).
- Reporting disaggregate APH data (e.g., Water Treatment APH) has proved a challenge and is likely to be causing reporting inconsistencies between companies and over time. For example, sites with combined abstraction / treatment / network pumping. One company also raised the question of whether aggregating APHs across the value chain leads to an accurate measure of total wholesale water APH or not?

Potential solutions

- Companies generally agreed that an APH deep dive comparative approach with company experts may be the best way forward given that it is difficult to know based on existing information whether variations in data over time and between companies are driven by reporting differences / changes or other factors. The option of WaterUK conducting the APH deep dive was also raised as something worth pursuing.
- Understanding what APH inputs/components are measured and estimated for each company may help to improve reporting consistency.
- Improved guidance is unlikely to solve the problem alone.
- Companies considered that improving consistency in APH reporting is likely to take time, and it may take until the end of AMP7 (2024-25) to achieve full compliance. Particularly if additional monitoring needs to be put in place. Therefore, reassessing the inclusion of APH in the wholesale base cost models maybe a more realistic ambition for PR29 than PR24.
- It was noted that the PR19 working group that looked at improving APH reporting were unable to make much progress. So, it will be important to manage expectations on what can be delivered in time for PR24.
- It was also noted that accurately back casting APH data will be a significant challenge even with a deep dive / audit.
- Relying on APH data at the wholesale water level, or water resources plus and treated water distribution level, may somewhat reduce reporting inconsistencies.

Including APH in econometric models

- Some companies highlighted that APH is most likely to be drive variations in power costs, which is only one component of wholesale water base costs. Therefore, one potential reason APH was not found to be statistically significant in the wholesale water base costs could be because it is mainly an opex / power cost driver, and not a capital maintenance cost driver.
- Some companies suggested doing some preliminary analysis to examine the strength of the relationship between power costs and APH. They considered that if it is not possible to find a statistically significant relationship between power costs and APH then it is unlikely we would find a statistically significant relationship between APH and wholesale water base costs more generally.
- Some companies noted that booster pumping stations (which was included in the PR19 wholesale water base cost econometric models) may better pick up capital maintenance requirements compared to APH. Hence, it is important not to assume a priori that APH is a more appropriate cost driver than booster pumping stations.
- There was a mixed response in terms of whether APH should be weighted by 'total measured volume of water pumped' to be included in the econometric models. Some companies agreed, or at least thought both options should be assessed. Whereas other

companies thought it would lead to another scale driver being included in the wholesale water base cost models and cause multicollinearity.
- Generally, companies considered the risk of perverse incentives associated with including APH in the wholesale water base cost models is low. The only potential issue raised was if the net zero challenge reduces APH and reduces allowances. It was also suggested in one breakout group that APH is arguably more exogenous than booster pumping stations.

Number of connected properties

Ofwat outlined the issues identified in company reporting of total connected properties at year end for water, and its proposed amendments to reporting requirements to address the reporting variations / inconsistencies between companies.

Ofwat proposed to collect information on three types of total connected properties:

- Billed properties
- Void properties
- Unbilled properties (not classed as voids)

Ofwat expect that these categories would be used for household and non-household total connected properties at year end reporting.

Questions discussed in breakout groups were:

- Do you agree with the three categories for reporting total connected household properties at year end for water?
    - Billed
    - Void
    - Unbilled
- Are there any additional considerations that should be made for non-household property reporting?
- How should properties be reported in the following scenarios?
    - Uneconomic to bill properties
    - Properties billed by a third party fed from a bulk supply point – for example NAVs
    - Household properties owned by developers prior to sale to first homeowner
- Do you consider there are any issues with excluding unbilled properties (i.e., only including billed and void properties) from average property totals in the reporting year?
- How can the 'Number of properties' used in the calculation of the supply interruptions performance commitment be captured in Table 4R?
- Is there value in capturing non-resident population for water separately to resident population?

- Would there be benefit in capturing total population for water split between measured and unmeasured in Table 4R as this is a component of the measured / unmeasured PCC calculation?

Feedback from discussion groups

- Generally, companies said that proposals would need to be reviewed by company experts. One suggestion was to formally ask companies to respond to each question in turn.
- Companies generally thought the proposed three categories (billed, void, unbilled) were sensible. But breaking down non-household property data into these three categories may be more challenging as MOSL data is unlikely to distinguish between billed and unbilled.
- Most companies don't seem to classify any customers as 'uneconomical to bill'.
- Some companies seem to include NAV properties in total properties connected figure and others do not. But it was noted by one company that including NAV properties is important for the Developer Services Reconciliation Mechanism.
- Reporting on households prior to occupation is also mixed, with some companies billing developers before the properties are occupied. But these numbers should be relatively immaterial, and the transition to billed properties should be relatively short.
- With regards to excluding unbilled properties from total property figures, companies noted that it may be appropriate to exclude them for some purposes but not in others (e.g., wholesale cost assessment vs. retail cost assessment vs. supply interruptions performance commitment). Important to think through carefully before deciding.
- On the question of resident versus non-resident population, one company noted that it would help to capture seasonal trends in populations, particularly for companies operating in tourist hotspots. But providing the data in a consistent way across companies may be challenging, and similar information could be obtained by looking at peak versus annual volumes (distribution input vs. treated wastewater).
- It was noted that it would not be an additional burden to capture total population for water split between measured and unmeasured as it is already provided as part of the per capita consumption (PCC) performance commitment data requirements.

Ensuring data quality

Ofwat highlighted the importance of high-quality information, and asked companies to identify potential additional measures we could implement to improve data quality, if any?

Feedback received through all group discussion

- Some support for confidence grades for key data series (e.g., key cost drivers), but it was noted that they are relatively subjective.

- Insights from confidence grade information could be used to instigate deep dive analysis on specific issues / data series.
- An indication of measured versus estimated could be used as an alternative to confidence grades.
- Improving data definitions could improve data quality in some cases. It was noted that a sub-working group was set up at PR19 to improve data definitions.
- Another suggestion was to ask the companies' assurance teams to provide a view on the quality / robustness/ accuracy of key data sets and include in assurance reports submitted to Ofwat.

Closing remarks

Ofwat outlined the schedule for forthcoming Cost Assessment Working Group (CAWG) meetings:

- Cost Service link (YKY, SES and TMS) – 14th September
- Forward looking capital maintenance (SWB and tbc) – 28th September
- Growth cost assessment (ANH and tbc) – 12th October

Ofwat also mentioned that meeting notes for this CAWG meeting and previous CAWG meetings will be uploaded onto our website at the following location:

https://www.ofwat.gov.uk/regulated-companies/price-review/2024-price-review/pr24-working-groups-and-workshops/

Ofwat also said that we would follow up with the questions related to the reporting of total connected properties following the meeting and ask companies to respond in writing.

Ofwat closed the meeting by asking companies to let us know if they are currently working on any relevant cost assessment papers for the Future Ideas Lab and would like to present an overview of the paper at a forthcoming workshop.