Anglian Water Customer Engagement Forum, Economics and Valuation Sub-Group Response to Anglian Water's Business Plan 2020-25

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Summary

Anglian Water (AW) has fully and effectively engaged with the sub-group of the Customer Engagement Forum (CEF), which was convened to bring expert critical scrutiny to the company's work on customer valuation and its application to the business plan. The sub-group has been able to explore all aspects of the company's work, including via productive dialogue with AW staff and the company's technical consultants.

The sub-group commends AW for a very thorough, strategically designed and well implemented programme of consumer engagement which has generated a suite of robust data on consumer valuations. Building on earlier engagement, notably for the refresh of the Sustainable Development Strategy,[1] AW has taken a careful and deliberative approach to research.

In a small number of cases (leakage and internal sewer flooding), the sub-group challenged the approach taken by AW to deriving a central customer valuation and/or the application of that value to calibrating the relevant Outcome Delivery Incentive. The company discussed its rationale but did not revise its approach in light of this challenge.

AW has demonstrated how, in terms of investment planning systems, the customer valuations are a key direct impact into cost benefit analysis for specific projects and programmes. The auditors (Jacobs) have also provided assurance of the link between customer valuation and cost benefit analysis at the level of the individual projects they have scrutinised.

On bill profiles, in the CEF's view AW has undertaken a wide range of customer research, including across all its main geographies and with particular focus on vulnerable groups, and using a wide and innovative range of research tools, to generate evidence about the acceptability of the proposed bill profiles. There appears to be a good level of support within AW's customer base to pay a slightly higher bill over AMP7, in return for the company's continued delivery of good outcomes against a challenging background of a much higher environment investment programme, and the need for greater investment to meet longer term resilience and climate change adaptation objectives. The proposed step up in bills from 2019/20 to 2020/21 of £6 (from £423 to £429) is 1.5% in real terms, within the threshold of a 2.5% increase (over the whole AMP7) for which AW found majority customer support. The CEF tested the link between bill profile and financeability. This is a particularly pertinent factor for AW given its recently announced approach to de-gearing, dividend deferment and the underlying growth in the customer base in the region served.

[1] Anglian Water PR19 Business Plan, Annex 1a: *Strategic Direction Statement* (November 2017). Also available on Anglian Water's website: https://www.anglianwater.co.uk/about-us/thinking-about-our-future/strategic-direction.aspx

CEF scrutiny of AW work

In the first period of its operation, the CEF membership was broadly based, including individuals with personal expertise in consumer issues for the sector and for vulnerable customers more generally, as well as those representing stakeholder groups from the environmental, business and local government sectors. In late 2017, in light of the increasing emphasis from Ofwat on the need for Consumer Challenge Groups to address a growing range of substantive questions about how companies had conducted and then applied customer valuation work, the CEF recruited three additional members with a broad range of economic regulatory experience, including working with companies in the water sector.

The CEF was thus enlarged from early December 2017,[2] and this body scrutinised and challenged the emerging findings from AW's customer valuation work through winter/spring 2017/18. In addition to full CEF meetings, from March 2018 the CEF formed an Economics and Valuation Sub-Group.[3] This has met formally with AW on five occasions from March to July 2018,[4] with one additional call on 9 August (full minutes are available on Anglian Water's website here). During this time the sub-group members have had the opportunity to receive further detailed presentations from AW staff and their technical consultants, and to interrogate and challenge the material presented. Agendas have been set by the sub-group, reflecting also AW's own valuation work plan and the flow of evidence and business plan proposals which have been developed during spring and early summer 2018. Questions raised by sub-group members have been fully recorded by AW in a challenge log,[5] and then addressed at subsequent meetings with substantive presentations.

Overview observations

Valuation strategy

AW developed a valuation strategy, based on independent expert advice, some time before the start of the PR19 process. This resulted in a well-designed, deliberative approach, building on lessons from PR14 at AW and more widely in the sector (cf NERA Economic Consulting report for AW, *Developing a PR19 Societal Valuation Strategy*, January 2016). AW's resulting valuation work programme was multi-stage and involved a number of innovative steps. The programme allowed time and space for evaluation of emerging results, course correction, and reworking as need be.

Although AW's valuation programme was well underway by July 2017, when the Consumer Council for Water (CCWater) published its own commissioned study into improving willingness-to-pay research in the water sector,[6] AW's work appears to have anticipated well the findings of the CCWater study. In particular, as recommended by the CCWater report:

- AW has clearly and deliberatively engaged the CEF throughout the valuation programme

[2] New members: **Daniel Storey** – Director of High Point Economics, currently working for Gatwick Airport on regulatory strategy; **Dr Paul Metcalfe** – Managing Director of PJM Economics; **Beth Corbould** – Economist and Policy Specialist, UK Civil Aviation Authority.

[3] The sub-group was chaired by Daniel Storey and included CEF members Bernard Crump (CCWater Regional Chair), Paul Metcalfe and Beth Corbould. CEF Chair Jeff Halliwell also attended the majority of meetings.

[4] Meetings were held on 6 March**,** 20 April 2018, 22 May 2018, 21 June 2018 and 9 July 2018 with an additional call on 9 August 2018 to discuss bill profiles and financeability.

[5] See Annex 5 of Anglian Water's Customer Engagement Forum Report for a full challenge log.

[6] *Improving willingness-to-pay research in the water sector*, Final Report by ICF Consulting Services Limited for CCWater, 7 July 2017.

- AW has taken care on sampling and survey design to ensure that results are representative of both the whole population and defined subsets of the customer base, are based on a clear customer understanding of the context for the valuation and the different service outcomes being described, and (as far as possible) are not distorted by biases in consumer responses.

In addition, the ICF-eftec team which completed the study for CCWater was also engaged by AW to design and implement its own valuation studies, thereby ensuring that AW's work implicitly embodied the findings from the CCWater review.[7]

Willingness-to-pay estimation

In the view of the sub-group, AW and its technical consultants have executed thoughtfully designed and implemented experiments, focused on eliciting informed and unbiased views of customers on the key parameters for AW's service, investment and incentives. Based on extensive written evidence and the CEF's interrogation of AW staff and consultants, it appears that AW's researchers have adopted best practice in theoretical frameworks for experiments, sampling approaches, and in practical design of briefing and questions for customers. The valuation research is supported by a very strong peer review report from one of the leading academic practitioners in the UK.[8]

As noted above, the valuation sub-group has been able to test thoroughly the AW written material, AW's own regulatory and customer engagement team and its professional researchers in a series of meetings through spring-summer 2018. As a result of this challenge, AW has addressed the substantive questions raised, has clarified its explanation of methods used and results obtained, and has recorded the challenge process as part of its finalisation of valuation documents.

AW appears to be operating close to the current leading edge of willingness-to-pay (WTP) methodologies. Nevertheless, the intrinsically challenging nature of this customer engagement (e.g. putting a value on very low likelihood downsides which are outside most people's lived experience, or thinking about the value of a clean beach) means that care needs to be taken to consider the weight which each value will bear, in practice. AW's overall conservative stance (i.e. adopting lower rather than higher values) is one step in this direction.

Triangulation

AW has, in virtually all cases, adopted a very structured and transparent approach, based on a series of logic steps comparing latest valuations with AW PR14 results, uprated for inflation and customer base dimensions, with a conservative bias to produce a recommended value range.

AW has then compared its emerging central valuation and range against other company data, for the purposes of sense-checking only. Other company data have been deemed secondary, and used simply as point of comparison with the AW recommended value, not to make adjustments. AW researchers scaled other companies' valuations for the relative sizes of their customer bases versus AW's. The effect of this scaling is to increase other companies' adjusted valuations. For the valuation of internal flooding, this approach to scaling was challenged by the sub-group, on the grounds that the value being scaled (change in risk measured as WTP per household per property affected) was already normalised to a per

[7] See Annex 12g of Anglian Water's PR19 Business Plan for the company's PR19 Societal Valuation Strategy.
[8] Prof Ken Willis, University of Newcastle (see Annexes 12i and 12j of Anglian Water's PR19 Business Plan for his reviews of the Main Stage Willingness to Pay Survey and the Second Stage State Preference Survey).

household level, and therefore should be invariant to the relative size of the water company. AW's technical advisers and peer reviewer strongly defended their approach, on the grounds that there were two factors linked to company size implicit in the valuation being considered – i.e. relative number of households across different water companies, and relative number of properties which each company serves. Given that the use of other company valuations in the triangulation process was simply as a point of comparison, rather than to make any adjustments to AW's central estimates or ranges, the sub-group decided not to pursue this challenge.

Customer interpretation of valuation experiments

In general, there is good evidence from focus group discussions after WTP exercises that experiments were well understood and tractable for individuals. In one case though, customer feedback on the description of the service being valued (river pollution) resulted in realignment of the valuation with a more significant pollution incident (in other words, consumers responded to AW's description of a Category 3 pollution incident by interpreting that to be a more significant Category 2 incident).

The sub-group explored the question as to whether all other results were sound in this regard, or could be subject to similar (if less severe) drift in customer perception of service away from AW's corporate understanding. AW produced good evidence that the in-built validity testing, including content validity, provided a good basis for concluding that customer respondents to survey questions had a good understanding of the choice tasks. In addition, AW used an innovative post-survey focus group to test out that customer perceptions of reliability of water resource options and water restrictions were consistent with AW's interpretations.

Valuation results

AW's studies generally produced **a strong asymmetry in results** (willingness to pay for improvements markedly lower than compensation value / willingness to accept lower service), but one that was in line with the research literature. AW's 'conservative' approach leads it in most cases to adopt the lower WTP for gains figure. The sub-group challenged to what extent would higher willingness to accept (WTA) values feed into penalty rates for outcome delivery incentives and into cost benefit analysis for investments to sustain current service levels. The company's response covered several issues:

- The ODI framework is largely targeted at companies making improvements to their levels of service during AMP7. For example, there are a number of measures where Ofwat prescribe companies to target improvements, i.e. upper quartile performance. For these and other measures involving improved performance, values of customers' WTP for better service are appropriate.
- The approach to setting incentives rates, based on the Ofwat formula, builds in asymmetry towards penalty, by default.
- The ODI framework is asymmetric towards penalty in a number of other ways. A number of asset health performance commitments are penalty only (such as Compliance Risk Index, Sewer Collapses). Also, the performance commitment levels are stretching (and some based on the forecast upper quartile), meaning companies will have to work hard to avoid penalty.

The sub-group was content with this response.

AW's studies generally produced a **wide and widely varying range in values** from lower to upper estimates for each service attribute. Typical low-high range is just over 100% of the central estimate, but

the range is as low as 38% (hosepipe ban) and as high as 307%. Again, these ranges were not out of line with similar WTP studies found in the water industry and in the wider research literature.

AW's response noted that the valuation studies were fully transparent about the ranges of values generated and the statistical significance of each result from which confidence intervals were generated. The range was used in triangulation, but AW has been disciplined in adopting the central valuation except in a very small number of cases, where other judgement factors have been applied. Finally, AW has incorporated the mid, low and high values into its cost benefit analysis and investment portfolio tools, in order to undertake sensitivity analysis.

AW's studies generally produced a **big difference between unscaled values** (willingness to pay for one service attribute in isolation) **and much lower scaled values** (measuring value of a bundle of service improvements). The median unscaled/scaled factor is 4.6, but again there is a wide range (1.2 to 6.2). AW's 'conservative' approach leads to scaled values being adopted (in nearly all cases). The sub-group examined this very significant adjustment, noting that different approaches are being taken by different companies. The scaling factors seen here are indicative that customers are not very sensitive to the scope of service change being offered when making their choices, which is a fundamental issue with the type of WTP research that is done here. While AW's approach is still consistent with best practice, it has limitations which is why it is wise to explore multiple sources of evidence as AW has done, and to take a conservative approach to valuation. The sub-group supported the approach taken to scaling, while noting that it could be argued to give rise to an overly conservative estimate of the value of all the attributes.

For some service attributes, AW's studies show **differing valuations from lower income groups**: some results show statistically significant material difference in willingness to pay among lower income groups (e.g. socio-economic groups DE – 25% of customer base – only willing to spend 43% of all customer average on leakage reduction). One way of responding to such results could be to give greater weight to low income groups than to high income groups when aggregating values, which would be consistent with HM Treasury *Green Book* guidance.[9] AW noted that it had explored the impact of differing valuations across socio-economic groups in the cost benefit analysis of drought resilience, which generated a number of planning and investment scenarios, driven by variations in valuation. With regard to the potential for weighting ODI parameters to the lower WTP of the lower income groups, AW noted that the socio-economic group DE had the same customer views as the rest of the customer base on the maximum of reward and penalties that are appropriate (2.2% of RoRE – focus groups with this segment confirmed this felt affordable). Given this, and the conservative approach to valuation in general and the asymmetry between financial incentives for over- and under-performance, AW considered that, alongside its affordability strategy, it had adequately accounted for differing views on willingness to pay and affordability in the customer base.

[9] *The Green Book: appraisal and evaluation in central government*, HM Treasury, last updated 6 March 2018.

The sub-group reviewed the **recommended valuations generated by AW's programme of work** and challenged two service measures:

- **Leakage**: in this case, AW applied an amended version of its own clearly defined steps for triangulating results from its PR19 valuation research, through introducing into the triangulation process an additional (higher) customer value generated as part of the research for its Second Stage Water Resources study. Given the significant financial incentives resting on this particular valuation, the sub-group sought further explanation from AW for this different approach (discussed further below).
- **Internal sewer flooding**: the sub-group consistently challenged the high values generated by AW's research as being out of line with a straightforward understanding of the proposed reduction in risk and the value of household property in the AW region. It was noted that other companies had used different valuation methods which tended to produce lower results. In addition, the sub-group reviewed the subjective well-being (SWB) study[10] which AW had commissioned to produce further evidence, from a different methodology to the other WTP studies. The SWB study generated even higher values than those obtained from the WTP study. The sub-group recognised that this was a well delivered and innovative approach for the UK water sector, and one which produced relative valuations similar to the WTP studies. It was concerned though that the 'raw' results from the SWB study was not scaled to adjust the absolute values for an affected property to the risk reduction values generated by the WTP studies, as was recommended in the SWB study report. Furthermore, it questioned the use of data on subjective well-being of lottery winners as the primary evidence for quantifying the relationship between changing wealth and changing well-being. AW provided further assurance that this was an accepted approach among researchers in this field to establish a coefficient between marginal changes in wealth and the metric for subjective well-being.

Application of customer valuations to investment planning and delivery incentives

The sub-group challenged AW to **demonstrate the application of evidence from customer engagement to cost benefit analysis of its investment programme and to quantification of ODIs**.

In general, the CEF as a whole was assured that the main messages and detailed findings from the emerging suite of valuation studies were thoroughly embedded throughout the AW business, by means of a periodically updated Customer Research & Engagement Synthesis.[11] This document, which was cascaded through the organisation to business planners, provided a clearly signposted summary of customer evidence for each of AW's key strategic outcomes. The CEF understood that business cases were required to reference the synthesis report, so that all parts of AW drew on the same shared understanding of customers. Jacobs also provided additional assurance in this regard.

With regard to **cost benefit analysis of its investment programme**, the sub-group were on the whole content with AW's thorough presentation of the application of customer valuations, along with other constraints (legal, resourcing, etc), to generate optimised portfolios of projects. This scrutiny focused on the methodology adopted by AW, rather than investigating the application of that methodology to significant individual investment projects, to check that triangulated customer valuation results were in

[10] See Annex 12f of Anglian Water's PR19 Business Plan: *Valuation of the impact of roadworks and flooding using the Wellbeing Valuation method*.
[11] See Annex 12c of Anglian Water's PR19 Business Plan: *Customer Engagement Research & Engagement Synthesis.*

practice being applied appropriately. The CEF as a whole though was assured that this scrutiny had been undertaken by the audit of the business plan undertaken by Jacobs. With regard to **quantification of ODIs**, in general the sub-group saw strong evidence that the body of customer engagement and research had been well used, first to define which additional company-specific performance commitments AW would propose in its business plan, and then to calibrate the level to be achieved and the over- and under-performance financial incentives.

The notable exception to this generally positive conclusion was the approach taken to the **leakage performance commitment**, where the sub-group had two concerns:

- The customer valuation for leakage had been increased above the level implied by the main willingness to pay studies by the application of a higher value (for the first 44Ml/day leakage reduction) from the Water Resources (WR) Second Stage Study, rather than the (lower) overall value from the WR study, as recommended in the valuation completion report itself.[12] This had the effect of increasing the leakage valuation from around 110 to 134 (+22%).
- Since AW is currently a frontier-leading company on leakage, under Ofwat rules it is able to apply for enhanced rates of out-performance incentives. The sub-group recognised that AW sought to interpret and apply the Ofwat guidance objectively to arrive at an enhancement factor of 4.29. Nevertheless, they considered that the derivation of the factor was somewhat arbitrary, and that there was not a specific foundation of customer support for this level of enhanced financial incentive, which would be paid by AW customers even though the benefits were supposed to spill over to other water companies' customers. The sub-group noted, however, that the bill impact of the enhanced incentive for leakage was included within the overall bill profiles which were accepted in customer engagement.

Response to Ofwat Aide Memoire questions

6a. General approach to performance commitments:

CCGs will challenge companies on their approaches to setting performance commitments including how well they reflect customers' views and how stretching they are.

The sub-group reviewed the AW 3 May submission to Ofwat,[13] which set out the company's proposed suite of performance commitments and the degree of support for each measure from customer engagement. This provided assurance that AW's proposals reflected relative priorities of its customers, including building on the strong foundations of the engagement conducted by AW to inform its revised Strategic Direction Statement (November 2017). The process of developing the performance commitments and the resulting proposed package of measures was also independently scrutinised and challenged by Jacobs in three phases over the last six months.

6b. Setting stretching performance commitments

The sub-group reviewed the basis for AW's proposed performance commitment levels. In the areas where AW has some discretion (i.e. outside of those PCs and levels which are mandated and defined by

[12] "When comparing these studies it is appropriate to compare the Interim scaled results to the WR study results as they are based on similar methodologies. Due to the ranges covered it is more appropriate to compare the WR overall value with the interim results." Section A3.4, page 150 of *Valuation Completion Report*: Annexes, June 2018 (see Annex 12h of Anglian Water PR19 Business Plan).

[13] See Annex 13k of Anglian Water PR19 Business Plan: *Our proposed performance commitment definitions 3 May 2018*.

Ofwat), the company has demonstrated a clear link between evidence from customer engagement and research on valuations and the proposed PC levels. This evidence informed both the design of AW's proposed package of measures, levels and stretch, and then customers' views on the package as a whole. The latter evidence was derived from acceptability testing with >1,600 household customers via a structured sample survey.[14] Overall there was a reasonable level of support, with support for individual PCLs ranging from 51-81%. In response to a challenge of customer understanding of performance commitments, Anglian Water reanalysed the data excluding customers who did not understand and support increased to 53-82% among those customers who stated they understood the performance commitment proposals. On average, across measures, 70% of customers thought the PC proposals were stretching.

6c. Using multiple data sources for performance commitment levels ("triangulation")

As noted above, AW carried out the triangulation process to derive recommended customer valuations in a transparent and reasonable manner. When determining the PCLs, AW has drawn on a wide range of sources including: Cost benefit analysis, Comparative information, Historical information, Minimum improvement, Maximum level attainable, Expert knowledge.

6d. Setting initial service levels (2019-20) for performance commitments

The CEF as a whole has reviewed AW's current performance across all PCs on a regular basis, including examining historical trend data and forward extrapolation of current performance improvement trends. The proposed 2019/20 levels were also tested with customer acceptability research, in the context of recent historical performance. On the basis of this evidence, the CEF considers that the proposed 2019/20 initial service levels area a reasonable basis for starting the AMP7 PCs. The CEF independently challenged Jacobs and was assured by Jacobs' opinion following their audit and assurance activity on the company's year-end performance.

6f. Bespoke performance commitments

Companies have the freedom to engage widely with their customers and local stakeholders, to propose bespoke performance commitments that reflect their customers' particular preferences.

The CEF as a whole examined the process by which AW generated its proposed package of bespoke PCs. As noted above, the focusing of a wide array of possible measures down to the 18 selected was assisted by aligning it with the strong evidence basis on customer engagement which had been developed via the earlier consultation on the revised Strategic Direction Statement. This provided a high degree of coherence and a sense of customer prioritisation against which the company could assess candidate PCs. This specific PCs put forward were then further tested via acceptability research, as referenced above.

7a. Consulting customers on ODIs

As noted above, the sub-group has challenged thoroughly the company's approach to customer valuation which underpins the setting of incentive rates. With very few exceptions (internal sewer flooding, leakage), the sub-group is assured that AW's proposals do reflect customers' views, correctly estimated and then applied.

[14] See Annex 13f of Anglian Water PR19 Business Plan: *Acceptability testing: PCs/ODIs*.

The proposed reputational-only ODIs appear reasonable: they are related to general environmental outcomes, not easily amenable to simple metrics which could support a financial incentive, and have relatively lower importance for most customers.

7b. In-period ODIs

The CEF concurs with AW's rationale for proposing bathing water quality as the only end-period ODI, and notes that there is customer support for this approach. The CEF would support AW publishing annual performance data and public commentary on this each year, to inform customers and other stakeholders of progress towards this end-period target.

7c. Setting ODI rates

In almost all cases, as noted above, the CEF and/or its valuation sub-group have challenged extensively the process adopted to generate customer valuations and the application of the results. In virtually all cases, the sub-group is content with the company's current proposals. See comment on leakage below at 7g.

7d. The overall size of a company's ODIs (the RoRE range)

As noted above, the sub-group has seen good evidence that AW has obtained a widespread support from across its customer base for the proposed RoRE range.

7f. ODIs for asset health performance commitments

The sub-group is assured that AW has conducted appropriate customer research, via a structured sample survey, to obtain evidence about customers' views on asset health and the relative weight to give to these measures, versus services, in setting PCs.

7g. Enhanced ODI outperformance payments and underperformance penalties

In the case of leakage, the sub-group queried the degree of customer support for the enhanced rewards (4 times the regular incentive rate) which AW proposes for achieving a further improvement in its industry-leading performance. The evidence adduced for this was derived from a relatively simple scenario game ('Be the Boss'), albeit with a large level of participation (5,000 customers). There was also support from customers for the **principle** of enhanced incentives for leakage (70% in favour), albeit not specifically for the 4 times enhanced rate proposed by AW. The sub-group also had concerns that the regular incentive rate was based on a non-standard approach to triangulation, which resulted in a higher value than would otherwise have been generated. The counter-argument is that, even if AW did achieve the high over-performance payments implied by the enhanced rewards rate, its overall financial rewards would be strictly contained within the +/- 2.2% RoRE range which did have a good degree of customer support, including from across the different socio-economic groups.

10. Securing cost efficiency – need for investment

In relation to cost adjustment claims: is there evidence that customers support the project?

AW is proposing three adjustment claims in its business plan: for maintaining sector-leading leakage performance, for advancing this frontier leakage performance, and for sludge transport.

In respect of the leakage cost adjustments, AW argues that there is very extensive support from across its customer base for continued efforts and investment in tackling leakage, as evidenced by a wide range of its customer engagement activity and quantified by the willingness to pay work. The sub-group concurs with this assessment.

In respect of sludge transport, AW conducted a limited amount of customer engagement, via its online community, quite late in the process of developing its business plan in July 2018. The research found that customers were nearly unanimous in their support for AW's proposals regarding sludge transport. It was not something customers had thought much about in the past, but they were keen to learn more.[15]

11. Financeability

AW surveyed customers as part of the acceptability testing of the proposed package on a range of possible RCV run-off rates, and received support for the proposed move over the AMP7 period towards the neutral rate, neither bringing forward nor deferring costs to customers beyond the normal economic depreciation rates. This represented an increase from the position in AMP6, when the RCV run-off rate had been held down in order to deliver more affordable bills to that generation of customers. AW explained clearly how it was proposing to transition gradually towards the higher neutral rate over AMP7, rather than implement a step-up, in order to moderate the impact on customer bills in the coming period.

12. Bill profiles

In the CEF's view, AW has undertaken a wide range of customer research, including across all its main geographies and with particular focus on vulnerable groups, and using a wide and innovative range of research tools, to generate evidence about the acceptability of the proposed bill profiles. There appears to be a good level of support within AW's customer base to pay a slightly higher bill over AMP7, in return for the company's continued delivery of good outcomes against a challenging background of rapid growth in the region and the need for greater investment to meet longer term resilience and climate change adaptation objectives. The proposed step up in bills from 2019/20 to 2020/21 of £6 (from £423 to £429) is 1.5% in real terms, within the threshold of a 2.5% increase (over the whole AMP7) for which AW found majority customer support. This support has been forthcoming at a time when the sector as a whole has come under considerable public criticism, and against a background expectation from Ofwat that bills across England should fall.

Broader questions of the profile of bills between AMP7 and beyond, and the implications of different profiles for AW's financeability, were explored in material presented and discussed on a call convened on 9 August 2018 for members of the CEF. AW explained clearly the equation they were balancing between delivering fair and reasonable bill profiles which customers supported, maintaining investment grade credit quality, testing the plan for financial resilience to cost shocks, and "living with their means" according to the cost of capital allowance determined by Ofwat. The CEF explored a range of factors which were severely constraining AW's room for manoeuvre. It broadly concluded that there was customer support for the steps taken by AW to shape the bill profile with a first year bill increase, notably by taking financial rewards for out-performance in AMP6 early in AMP7, and that shaping the bill profile in this way was a necessary step in order to maintain investment grade credit rating (on actual company basis). Alternative measures, such as deferring capital investment, were not available, given the regulatory constraints imposed by Environment Agency for the timely delivery of an agreed portfolio of Water Industry National Environment Programme (WINEP) projects.

[15] *Exploring sludge transport*: Report prepared by Incling for Anglian Water, dated 20 July 2018. Referenced in Anglian Water Customer Research & Engagement Synthesis, Annex 12c of Anglian Water PR19 Business Plan, p18.