

iCON Infrastructure LLP

1st Floor, Pollen House
10-12 Cork Street
London, W1S 3NP
United Kingdom

PR19 Draft Methodology

Water 2020

Ofwat

Centre City Tower

7 Hill Street

Birmingham B5 4UA

United Kingdom

By email: water2020@ofwat.gsi.gov.uk

30 August 2017

Dear Cathryn

Response to PR19 Draft Methodology Consultation

Thank you for the opportunity to respond to your consultation in relation to the PR19 Draft Methodology. I am writing to you in my capacity as a senior representative of the iCON Infrastructure group (“iCON Infrastructure”), which is currently an investor in the UK water sector by virtue of an 80% shareholding in Bristol Water plc (“Bristol Water”) owned by institutional funds which it advises. We note that this paper reflects iCON Infrastructure’s own views as an investor, and not that of Bristol Water or its board.

We fully support the four strategic priorities underpinning Ofwat’s 2020 agenda:- great customer service, long term resilience, innovation and affordable bills. Now more than ever, the water industry needs to focus on demonstrating its legitimacy, including by striving to ensure that all stakeholders appreciate the benefits of participation by responsible, private investors such as iCON Infrastructure.

This response to the consultation focuses on concerns in the area of cost of capital which arise from the PR19 Draft Methodology, with an emphasis on how they apply to the smaller water only companies (“WOCs”). The smaller WOCs play an important role in the sector, to the benefit of their customers and those of the industry as a whole. Their size enables them to be more manageable and adaptable than larger enterprises, acting as the water sector’s equivalent of “challenger” banks – for example, we note the Competition and Markets Authority (the “CMA”) observations in 2015 concerning the historically higher level of operational outperformance achieved by WOCs as compared with Water and Sewerage Companies (“WASCs”). WOCs demonstrate a close connection with their local communities providing excellent and tailored customer service, which is in part reflected in the overweight position of the smaller WOCs at the top of the Service Incentive Mechanism league table. In addition, WOCs generally have lower bills than surrounding water companies - for example, Bristol Water’s average annual water bill is £177 versus £240 for other customers in the area surrounding Bristol Water.

In summary, our view is that the cumulative net effect of the proposed positions contained in the PR19 Draft Methodology document result in an implied allowed cost of capital that is well below firms’ actual cost of capital, and particularly that of the smaller WOCs. To address this, we are proposing that WOCs’ debt costs be appropriately reflected in allowances (which could be either explicitly or via the small company premium), a rebalancing of the cost of equity assessment to reflect more robust historical evidence as well as consistency and an integrated approach to consideration of cost of capital, potential performance scenarios and financeability.

1. Small Company Premium

It is unfortunate that PR19 Draft Methodology appears to start from the presumption that a small company premium does not exist. I note and concur with the statement of the CMA in its decision on Bristol Water's appeal of its final determination in 2015 ("Bristol Water 2015"): "Ofwat accepted that small companies have, on average, a higher cost of capital. While this remains the case, our starting point would be that this should be taken in to account in the assumption on the cost of finance."

At iCON Infrastructure, we have believed and relied upon the existence of a small company premium being a settled regulatory position which has been applied consistently in the water sector - by Ofwat through four price controls confirmed by the CMA (and its predecessors) on appeal. Our interpretation of the source materials referred to in the PR19 Draft Methodology consultation document differs from that presented and we do not support overturning either the considerable body of regulatory precedent or exposing the affected companies to the risk of stranded cost. Quoting the CMA's views in Bristol Water 2015 again in the context of the small company premium: "Regulatory consistency has a beneficial effect, particularly when considering cost of capital given the long-term nature of financing".

We invite reconsideration of the proposed position in the context of the cost of capital review currently being undertaken.

2. Embedded Debt

We welcome the continued proposed inclusion of embedded debt cost in the overall cost of debt allowance and the stated intention to take account of the high level of embedded index linked debt in the approach to PR19. Nevertheless, a material concern exists in relation to the interpretation of the view expressed in the consultation that differences in embedded debt cost have been exclusively the result of companies' decisions as regards the timing and tenor of debt issuance. We submit that the assessment of embedded debt should recognise:

- a) that companies, and in particular the WOCs, have not and do not in practice have the wide freedom of movement in relation to debt financing decisions implied by the view (including because of the historical context in which debt has been raised),
- b) the long term nature of assets and financing decisions related thereto,
- c) the actual position of companies,
- d) companies' differential access to finance, such as the access to debt from the European Investment Bank historically enjoyed by the WASCs, and
- e) financeability issues arising from embedded debt.

Such an approach would be consistent with the perspective taken in Bristol Water 2015 where the CMA observed that their financing duty "would indicate caution against setting the cost of capital too low, and in particular potentially excluding costs actually incurred".

Even before the contemplated changes for AMP7, small water only companies are being challenged in AMP6 by the PR14 cost of debt assumptions, largely as a result of Artesian debt programme. PWC advising Ofwat in 2014 noted "given [Artesian finance] is such a large constituent of the debt portfolio of small WOCs it is a critical component in assessing the embedded cost of debt." All WOCs have used Artesian finance (or, in Sutton & East Surrey Water's case, a precursor issue) and it comprises the majority of their debt. The case that Artesian debt was efficiently incurred, both as to cost and tenor, by the WOCs has been well made and commented on elsewhere (eg. such as in the context of Bristol Water 2015 and by NERA on behalf of Portsmouth Water in October 2016). Its benefits have been recognised by Ofwat over time, including in PR04 and PR09. We urge that the PR19 methodology recognises, as articulated by the CMA in Bristol Water 2015, "... the reasonable expectation of investors that they could, on average over time, recover the cost of efficiently incurred debt."

3. Debt Adjustment Mechanism

We are supportive of a properly structured cost of debt adjustment mechanism for PR19 which reduces the scope for outperformance, where such outperformance is not legitimate. We would view such a measure as being an incremental rather than revolutionary step, in particular having regard for the observation in PWC's report to Ofwat concerning AMP6 performance to date (which is subsequent to the period considered by the National Audit Office in 2015) that "... companies have, on average, underperformed on the cost of debt (i.e. they have incurred a higher cost of debt than the allowance)"¹. We expect there may be scope for further fine-tuning of specific aspects of the debt adjustment mechanism over coming months, which would include consideration of the issues raised immediately below.

In a market of rising interest rates (which it is accepted we are currently facing), utilising a 10 year historical average gives rise to the risk, all other things equal, of future structural under-recovery by companies of the cost of new debt, particularly for those that are not in a position to raise regularly such as the WOCs (refer discussion concerning Ofgem RIIO-ED1). In the context of a normal yield curve (and the assumption concerning proportion of new debt below), there could also be an incentive for companies, specifically those that are able to take advantage, to issue new debt at the shorter end of the yield curve than is implicit from the iBoxx indices, given the average tenor of constituent bonds is c.20 years. This has important implications for debt tenor in the sector and the presence of refinancing risk in the future.

The PR19 Draft Methodology's proposed averages of 75% embedded debt and 25% new debt over AMP7 neither reflects the actual nor the desired debt maturity structure for the sector. Assuming a flat RCV, it effectively amounts to the assumption that 50% of a company's debt outstanding at 2020 is refinanced by 2025, which is not the case for the WOC sector in particular. Concentration of maturities presents a material refinancing risk and diversity in tenor is a necessary underpinning to water companies' ratings. In addition, 50% refinancing of debt in AMP7 is inconsistent with the average maturity of debt in the sector, estimated to be 18-19 years. Assuming constant annual raising (which is not the case), the normal level of raising based on c.20 year maturity would be c.5% per annum giving 25% new debt raised within an AMP and 12.5% new debt on average. Finally, debt raising for the smaller WOCs is not undertaken at a constant level over time (due inter alia to size, needs and limited market access), with the debt of many being long term.

The PR19 Draft Methodology proposes an average of A and BBB credit rated debt for evaluating the cost of new debt on the basis that "a mix of A and BBB credit ratings aligns with an efficient benchmark of a notional company". This would appear to discriminate given that small WOCs cannot and do not currently achieve A-equivalent ratings; for example, Bristol Water is rated in the BBB-equivalent category. As CEPA advising Ofwat in 2009 observed: "WOCs would generally be required to achieve higher financial ratios than WASCs in order to achieve the same credit rating". In addition, it represents a change from PR14 where, as PWC advising Ofwat in PR14 observed, the cost of new debt "...reflected a greater weighting towards the BBB-rated end of the cost of debt range". Applying BBB-equivalent yields (or incorporating this aspect in consideration of the small company premium) for the smaller WOCs would more fairly reflect reality.

Finally, the PR19 Draft Methodology document outlines Ofwat's desire to "retain the option to allow for ex-ante adjustments to this benchmark if evidence persists that efficient companies can outperform the market cost of debt". Further clarification concerning the nature and circumstances for potential exercise of this discretion will be helpful.

¹ We have been unable to replicate companies' debt costs presented in Figure 11 of the National Audit Office's report (insofar as they relate to Bristol Water) or PWC's figures contained in Figure 12 of its report to Ofwat. Our high level survey of companies' releases suggests that the companies incurred higher debt costs than is shown.

4. Total Market Return (“TMR”)

We are comforted that the PR19 Draft Methodology makes clear that the lens through which cost of capital allowances will be considered is what “best meets our customer and financing functions duties over multiple control periods”. However, we have a significant concern about the contemplated change in basis for estimation of TMR, which we believe results in an underestimation of this key figure.

It is expected that the evidentiary threshold applied to a material departure from historic and widely adopted precedent should be very high, especially in the context of intergenerational assets financed over decades rather than years and in reliance on regulatory consistency and predictability. In this regard, we note Ofgem’s views on the subject in the context of their 2014 RIIO-ED1 decision where they expressed concern “to ensure that the approach we take to estimating the cost of equity at successive reviews avoids unnecessary subjectivity” going on to “draw a clear distinction between subjective assessments and objective evidence based determinations. We have therefore avoided placing too much weight on forward looking assessments of the equity market return”.

In this case, the PWC report leaves the reader with the sense that its approach amounts to more of a hypothesis than a thoroughly tested basis which meets the requisite evidential threshold. In an attempt to discern a TMR which would apply in three to five years’ time (i.e. during AMP7 from 2020 to 2025), PWC applies subjective methodologies to selective, short run data thereby giving rise to significant questions concerning statistical integrity (giving rise to material uncertainty) as well as the scope for, and implications of, their subjective interpretation. As Wright and Smithers observed in 2014 advising Ofgem, there is “no straightforward, systematic, transparent and replicable way of incorporating ‘recent evidence’ into estimates of the market cost of equity”. The result is a view which appears to conflict not only with precedent but also those of other contemporary commentators, such as Damodaran. The sentiment of Ofgem in 2014 is relevant here: “we recognise the need to be cautious about placing weight on these hypotheses given that there is no consensus on these issues”.

We consider briefly below the significant uncertainty and subjectivity arising from the approaches that PWC consider in seeking to reach a view on a new approach to TMR estimation:

a) *Dividend Discount Model (“DDM”):-*

DDM’s failures as a reliable statistical model are well documented. For example, Europe Economics advising Ofwat in the context of PR09 commented on “a number of problems with the [DDM] which mean that estimates derived from this approach need to be treated with caution, even as crosschecks” and then went on to quote Ben McClure’s article “Digging into the [DDM]” who outlined that the DDM “requires an enormous amount of speculation in trying to forecast future dividends ... The model is subject to the axiom ‘garbage in, garbage out’, meaning that a model is only as good as the assumptions it is based upon. Furthermore, the inputs that produce valuations are always changing and susceptible to error.”

Observations that are then made from the DDM derived data are not conclusive, and quite differing views are just as easily reached. For example, PWC’s contention that “TMR estimates have been falling gradually since 2014” is overstated, not only because of calculation uncertainty but also the short time frame considered. As Wright and Smithers remarked in advice to Ofgem in 2014, “... it is impossible to make any clear-cut inference about the cost of equity based on just a few years’ returns”. Figure 26 of the PWC report alludes to the large margin of statistical error (+/-3%) in the TMR derived from various DDM methodologies.

b) *Market-to-Asset Ratios (“MARs”):-*

The use of MAR data has been considered by numerous regulators as a “cross-check for investors’ overall expectations of long term returns cost of capital” but has generally been discounted

because of lack of reliability and subjectivity, with premia being a potential function of a large number of factors (refer to, for example, previous commentary from Ofwat, Ofgem, CAA and the CMA on the subject). As Europe Economics observed advising Ofwat in 2009: “Mechanical derivation of the market cost of capital from MAR data rests on very strong assumptions about market expectations of the future WACC as well as a host of other factors and any results of such an attempted exercise is unlikely to be reliable”.

There is then an uncomfortable reliance placed by PWC on the MAR analysis which, *prima facie*, seems to be lacking breadth, depth and transparency. For example, the performance of two listed WASCs for a short time frame (April 2015 - March 2016) is a statistically weak sample and the basis of attribution of the outperformance is unclear, merely referencing analyst reports. For example, there is an alternative hypothesis that the step up in listed MARs observed during AMP6 could be largely attributed to operational outperformance arising from the new features of incentive based regulation introduced in PR14, of which the WASCs appear to be principal beneficiaries. Further, it is the intention for the scope for outperformance in relation to cost of debt to be reduced at PR19 via the new debt indexation mechanism. The analysis performed can just as easily be cast to show very different results, reinforcing its questionable reliability.

c) *Observation and Opinion:-*

We note with some disquiet the reliance on individual opinions and anecdote as potential justification for the change in methodology. One just needs to observe the path of oil prices over the past 12 years, and predictions around that, to appreciate the risks and uncertainty in markets and the lack of reliability of individual opinions and forecasts.

For example, the “prediction” contained in the letter introducing the Credit Suisse’s 2017 Global Investment Returns Yearbook which is quoted in Appendix 13 to the PR19 Draft Methodology could be seen to be at odds with Section 1.3 of the underlying document, which states:- “To understand risk and return in capital markets – a key objective of the Yearbook – we must examine periods much longer than 20 years because stocks are volatile, with major variation in year-to-year returns. We need long time series to support inferences about stock returns.” This volatility, and the importance of the starting point and time period selected for short run analysis, is evident from Figure 24 of the PWC report (a summary of which is contained in Figure 3 of Appendix 13 to the PR19 Draft Methodology). A simple review of variability in returns in each year comprising the period 2000 to 2015 gives rise to major doubts regarding the predictive value of subjective opinion (and the interpretative value of short run data).

As a further example, it is observed in the consultation document that one market participant, HICL Infrastructure Company (“HICL”), has reduced the nominal, post-tax UK equity discount rate that it uses for its valuations. Apart from the issues associated with relying on a single, subjective data point, a number of questions could arise from further investigation into the figures, such as:

- i. the 0.6% gross change in HICL’s subjective discount rate assessment from March 2015 to March 2017 translates to a c.0.4% net change when corresponding changes in economic assumptions are incorporated, both of these figures being materially less than the 1.2-1.9% reduction in nominal cost of equity from PR14 suggested by the PR19 Draft Methodology;
- ii. a simple analysis of HICL’s disclosures suggest that discount rate changes for the group as a whole result in cumulative change in equity value of c.5% on a gross basis and c.4% net of changes to in economic assumptions, materially less than the reduction that would be implied from the proposed shift in equity returns contemplated by the PR19 Draft Methodology; and
- iii. the calculation basis and data set are not clear – for example, the discount rates are averages for the portfolio and thus can be affected by movements in the nature and

construction of the portfolio, such as the proportion of assets in construction phase as well the manager's subjective assessment of the assets' risk profile.

The PR19 Draft Methodology observes that "Ofwat's view of total market return has varied significantly over control periods". However, as Figure 6 in Appendix 13 illustrates, the TMR has been within a relatively narrow range between 6.25% and 7.7% with an average (and median) of 7.0%. The step down to the 6.25% low point in PR99 (touched on further in the conclusion below) was followed by a material upwards correction in PR04 to the high of 7.7%, illustrating the risks of volatility in assessments of TMR. Excluding these figures, the range is very narrow. It is also noted that mean reversion is a well documented feature of TMR over time (see, for example, Damodaran 2016).

In the above context, we believe that long-term historical evidence should be determinative of TMR and we welcome further discussion in relation to methodology for TMR estimation in advance of the release of cost of capital views later this year.

5. Beta

The PWC report to Ofwat surveys potential beta levels but does not opine on a recommended level. We note that more recent evidence adduced by PWC (and contemporaneous with some of the short run evidence used to support the TMR findings) points to an increase in beta from PR14 levels.

Notwithstanding this, the approach taken in the PR19 Draft Methodology has been to assume the PR14 beta figure and apply that assumed figure to derive an implied cost of equity for illustrative purposes. Such an approach, if carried through, would give rise to an issue of consistency in application.

Further, consideration of changes to risk profile is necessary in the context of beta assessments. As Ofgem noted in the context of RIIO-ED1, a "short-term approach to estimation of the equity market return would inevitably introduce systematic risk to the regulated business, as the allowed returns would be more in-line with the market returns. This would increase beta, and therefore imply a higher cost of capital". The potential implication for risk arising from changes in how the cost of capital is derived has also been recognised by Ofwat representatives in the context of discussions concerning debt adjustment mechanisms in front of the Public Accounts' Committee in 2016. Implications for risk are not limited to financing considerations, but also involve consideration of the greater variability in potential returns arising from the contemplated approach to operational performance and range of outcomes arising therefrom.

We look forward to a thorough analysis of, and consistent approach to, estimation of beta in the context of the forthcoming cost of capital review.

6. Financeability

We welcome Ofwat's intention to provide its views on cost of capital early in the process – scheduled for later this year - and believe that the formulation of cost of capital views are best undertaken in an integrated manner alongside performance and financeability assessments for all participants in the sector across a range of scenarios, in order to ensure the objective of long term resilience for the sector as a whole. Such a holistic approach should be consistent with CMA's approach in Bristol Water 2015 as well as help to address one criticism levied at PR99, being that assessments of rate of return and evaluation of financeability were not sufficiently joined up.

We welcome and embrace the focus on operational performance for PR19 but remain concerned about the implications for financeability, and indeed possibility viability, as a result of elements of the proposed approach. For example, we would query the implications of RORE ranges encompassing negative outcomes which are contemplated for all companies. Further, the challenges being proposed for companies, such as attainment of top quartile operating performance by the commencement of AMP7 as well as expectation of ODI penalties for average companies alludes to the likelihood that most companies will not earn their cost of capital. This is notwithstanding, as PWC acknowledge in their report, it being too early in the

lifecycle of AMP6 to truly assess the performance of the sector and the reasons therefore; for example, in respect of totex, what is deferral versus true efficiency and what are the long term implications for resilience? The risk is further compounded by the potential stranding and underperformance of financing costs which are highlighted earlier in this letter.

7. Conclusion

It is right and appropriate to challenge the sector to respond to customers' increasing demand for improved performance and reduced costs. Notwithstanding this and constructive attempts to address legitimacy issues, our concern is that the sum total of all the various elements of the PR19 Draft Methodology may go well beyond what is proportionate or appropriate at this time to address the issues, with significant implications for both investors and customers in the medium to long-term.

In this regard, elements of the discussion in the PR19 Draft Methodology in relation to cost of capital would appear to echo Ofwat in PR99, quoting extracts of the PR99 final determination document:

"the Director considers that historical rates significantly overstate the current expectations of actual equity investors ... There is, however, broad agreement that the wide range of historical estimates of the premium are of questionable relevance and all significantly overstate the current expectations of actual equity investors ... The Director considers that it is important to establish the market's expectations looking forward, based upon expectations about the continuance of a low-inflation environment ... He considers that the combination of a forward-looking cost of capital and an allowance for embedded fixed rate debt provides a more focused assessment of required returns than can be given by historical averages. Ofwat's approach looks forward and is based on market expectations about the continuance of a low inflation environment".

The "step change in returns" at PR99, as described and compensated for by Ofwat in PR04, resulted in, inter alia, companies trading below Regulatory Capital Value, gave rise to funding issues for the sector (flowing from the requirement to invest £1 today with the real risk that it would only be worth, say, 90 pence tomorrow), led to the development of new debt structures to finance the substantial capital requirements (of which the Artesian programme for the WOCs was a key element) and were an important catalyst for the substantial change in the sector's ownership over this millennium. These implications were not fully appreciated at the time.

In this light, PWC's report to Ofwat which points to potential volatility in prices as being the key policy consideration for the proposals discussed, appears to underestimate the potential implications. We believe that potential consequences should be more fully explored. In particular, the WOCs as a valued sub-sector of the water industry would appear particularly vulnerable given aspects of the PR19 Draft Methodology.

We look forward to continuing our constructive engagement with you in relation to PR19 to help achieve an outcome that best balances the interests of all stakeholders, including investors.

Yours sincerely



Paul Malan
Senior Partner
iCON Infrastructure LLP