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**OFWAT: Consultation on Price Review [PR19] Methodology**

I wish to comment on the above Consultation.

1. In May 2009, Dieter Helm, Professor of Energy Policy and Fellow in Economics at Blavatnik School of Government, Oxford, Chairman of the DEFRA Natural Capital Committee, and an internationally renowned commentator on public service utilities, stated in the introduction to his Paper: *“Utility Regulation, the RAB and the Cost of Capital”* that:-

*“There are a number of reasons why the great British privatization experiment may have run its course. At the heart of privatization are two fundamental ideas: that equity is a necessary condition for maximizing incentives; and that private balance sheets play an important role in financing investment. Both of these have now been seriously undermined: there has been a flight of equity since the mid-1990’s, accelerating after 2000; and financial engineering has exhausted balance sheets and broken the link between physical investment and borrowing”.*

2. Prof. Helm concludes in his Paper:-

*“In classic British pragmatic style, what began as a crude and simple fixed-price, fixed period regulatory rule has migrated into a model for a more efficient allocation of costs and risks between customers, investors and taxpayers. RPI – X is now, in practice, unrecognizable against the initial model. The process of this evolution has been driven by regulators exercising discretion, by events, and by public pressure over both the quality of service and the prices”.*

*“This process has had many benefits, but it has costs too, not least the degree of micro-management and the sheer complexity of the periodic review process (viz. PR14: author comment). At the limit, water companies now produce enormous submissions of their business plans. The end product is pregnant with an efficient approach to regulation, but so far it remains expensive and the end result for customers and the economy more generally is far from a satisfactory level of provision, service or costs.”*

3. Seven years later, in Jan 2016, the Parliamentary Public Accounts Committee opined that: *“by consistently overestimating financing costs, OFWAT has allowed companies to make windfall gains, which have not been shared in a structured way to ensure customers get a fair deal”*

This publicly confirmed that the current mechanism for setting tariffs is arguably ‘past its sell-by date’. Sadly, the opportunity to rectify this aberration via the PR19 Review Guidelines has not been taken, and the system remains artificial and flawed.

4. The tariff-setting mechanism, as used by OFWAT, - the RAB Model, - has its origins in the privatization of state-owned UK public service utilities 1989-95.

In summary, the RAB (“Regulatory Asset Base”) for each utility was determined at Privatization by the average market value of the privatized utility’s shares on the London Stock Exchange for the first 200 days following privatization, plus the book value (or market value, in the context of bonds) of the utility’s outstanding long-term debt.

After the first year of privatization, the RAB for each utility was increased by RPI, which, together with the value of new capital investment made, less depreciation on existing assets, determined the RCV (“Regulatory Capital Value”), notionally representing the value of the utility. On occasion, the Regulator imposed an RPI – ‘X’ factor, as an incentive for the utility to become more efficient.

Not only does OFWAT allow utilities to include in their tariffs a cost component covering the return on capital on existing assets, based on RCV, the Regulator also allows utilities to include the financing costs (debt service and shareholder dividends) for any investment in new or replacement assets.

Hence, the cost of capital becomes a key feature of the assumptions needed to set tariffs.

Finally, every 5 years, the Regulator reviews the utilities’ Business Plans, and determined the tariff levels the utility can charge customers for the next 5 years.

5. The flaws in the methodology are multiple:-
  - The RAB was based upon a Stock Market valuation at the time of privatization, 25 years ago. Stock market sentiments and dynamics are not the same today as they were then;
  - Most of the privatized England & Wales water utilities, - 13 out of 16, - today are not quoted on the Exchange; they have been bought up by investor groups and taken ‘off Exchange’. Hence, they have no Stock Market comparators;
  - The annual updating of RCV by RPI, after repeating the process 25 times, does not necessarily reflect the ‘value’ of utilities today. RPI may arguably be the best index for reflecting increased value that economists can muster, but it does not necessarily reflect the actual increase in costs for operating and investing in water and sewage assets, especially as when repeatedly applied over 25 years.

Hence, the artificial nature of the RCV.

6. While engineers and operators can make justifiable estimates as to the costs incurred in operating and investing in a water and sewage network, there are other components of the tariff formula, which are less well-founded. In particular, the assumptions used to arrive at the cost of capital, or “WACC” (Weighted Average Cost of Capital), employed in operating a water utility and the financing cost of new investments, is largely based on subjective values. For example:-

- The current OFWAT methodology for the cost of capital uses an econometric CAPM (Capital Asset Pricing Model), which includes artificial assumptions as to the cost of debt and the cost of equity, plus assumptions as to the proportion of equity and debt, which comprise the capital of the incumbent utility.
- The actual cost of debt can be fairly readily and consistently identified by the pricing for long-term bonds for national public service utilities, so the range of error in this assumption is limited. However, water is slightly unusual in that the service is monopolistic, so a minor adjustment (reduction) is appropriate to reflect that characteristic.
- The cost of equity is more problematic as, today, there are few comparators, as so many of the UK water utilities are ‘off Exchange’. Further, equity returns include the value of dividends, plus any capital gain/loss between share purchase and disposal.
- The CAPM Model uses assumptions on market, sectoral and country risks, but such assumptions are quite subjective, variable and open to challenge. This undermines the integrity of the CAPM outputs.
- Thirdly, the proportion of debt-to-equity in the water utilities finances is the final component of the calculation for the ‘cost of capital’. OFWAT uses what they believe is the proportion as might apply to a notionally efficient water utility, - around 63% debt to 38% equity, - whereas most of the UK water utilities actually have debt-to-equity ratios in the order of 80% debt to 20% equity in their Accounts, - or are even more indebted, - producing an actual ‘cost of capital’ lower than that OFWAT assumes for its tariff setting.

7. All in all, it is not surprising the Public Accounts Committee opined as they did.

Finally, in this modern world, five year review periods are somewhat long and inflexible. A more responsive and dynamic regime is desirable.

### **Further Reasons for Change:**

8. Under the RAB Model, customers pay financing costs, i.e. payment in the form of shareholder dividends and interest on debt, *during the construction period of investment in new assets*, before any service is delivered by those assets. This is contrary to normal private sector investment principles.

The basic principle of private sector investment is that the private sector carries the risk of completing projects to cost, time and specification before any payment is made.

Hence, under the RAB Model, much of the completion risk has effectively been passed from the private utility to customers, who have no ability to manage or control such risks. The incentive for contractors to achieve completion to time and cost is now much diminished, if not eliminated. An extreme example of this flaw is Thames Water's "Super Sewer", being built by Tideway, a high-risk construction project with a 7 year construction period. Overall, the RAB Model represents a significant mis-allocation of risk.

9. The mantra of competition, as expounded in recent years by Government and Whitehall, - and more recently OFWAT, - is largely a myth for the provision of water and sewage services, a natural monopoly. The introduction of new intermediary, retail 'suppliers' to customers, as OFWAT is introducing for the wholesale sector as a start, may in the short-term introduce innovations, efficiencies and cost-savings, but at the end of the day the incumbent existing utility will always be the core provider of water and sewage services. When services fail, - which indubitably they will at some point, - it will be found, as for the UK electricity market, many of the new retail suppliers will be poorly capitalized to manage the interruptions to services and the legal wrangles as to liability, which will follow. Lawyers may rejoice, but customers will pay in the end for the increased risks of service delivery, reliability and quality.

The above commentary only reinforces the need re-think the PR19 Guidelines.

### **The Review Process for PR19:**

10. The setting of tariffs for an essential, public monopoly service is a critical component of everyday costs incurred by society. Hence, the process for arriving at the tariffs that public service providers, whether publicly or privately owned and controlled, has to be transparent and publicly justifiable.
11. In July 2013, OFWAT produced Guidelines for the methodology for setting tariffs for the next review period, PR14. It was 169 pages long.

In July 2017, OFWAT produced the equivalent document for PR19. It is 278 pages long; a 64% increase. [So much for the achievement of "SDG" [Sustainable Development Goals] by OFWAT].

Such cumbersome documentation undermines any intentions of greater transparency and justification of the process. After 25 years of a privatized water sector, it seems that a virtue is being made of complexity, whereas simplicity provides the transparency demanded of an essential, monopoly public service [cf. Dieter Helm's comments: para 2].

12. Meanwhile, customers are largely ignored in the development of PR19. Every 6 months or so, OFWAT senior management have held Briefings exclusively for The City in support of their statutory obligation to ensure that water utilities can finance their activities. They have just done so for PR19, based on an assumed view as to customer wishes.

13. Similarly, once or twice per year, Consumer Councils for Water hold public meetings, where customers can air their views. However, my experience of such events has been that issues of tariff-setting, probity of providers and their financeability rarely surface on such occasions. Furthermore, Consumer Challenge Groups are conspicuous by their lack of identity, like MEP's, and remain elusive or imaginary,

..... yet, OFWAT in recent times has placed the logo: "*Trust in Water*" on much of their literature.

How can customers have any trust in their Regulator, never mind water and sewage service providers, - particularly, if the latter's ultimate owner and controller lies in a distant and, possibly, dodgy tax-haven, - when there is such minimal contact between the Regulator and the regulated? ..... and, when there has been communication, it is represented by a pricing mechanism, which takes 278 pages to describe??

14. The situation is even worse than alluded to above. The Chief Executive of the Regulator, announced her departure from office, 7 days after publication of the PR19 Guidelines. "Trust in water" seems, indeed, to be a dream slipping over the horizon.

15. The proposals for the PR19 Price Review are the culmination of this broken regulatory regime and a fine demonstration of all what Prof. Helm identified 8 years ago.

It is high time for a "root and branch" reform and revision of the regulatory regime and its underlying procedures.

**A Possible Framework for Reform:**

16. Re-nationalization of the utilities is not the answer, politically and financially. The alternative of public interest companies, as for Glas Cymru, may have its attractions, - and, indeed, many countries follow this model, - but such a change may be deemed as too radical for Government to accept.

17. However, any new regime for the setting of tariffs, which underpin the profitability of the service for private investors, needs to be based on the principles of:-

- verifiable data;
- publicly justifiable outcomes;
- transparency;
- fairness to customers and providers;
- current commercial and financial values in utility performance; and
- flexibility

18. Such criteria could be largely met by:-

- the data as provided by the audited Accounts of the Licencees, representing an adequate, reliable and up-to-date source of information;

- the operations of each utility being reflected and simulated by an agreed computer Model, based on current data from the Accounts for each utility, and identifying wholesale and retail water and sewage operations, finance and taxation issues;
- the tariff review period being reduced to every one or two years, with the agreed computer Model updated accordingly, as data becomes available;
- the Model for each utility being independently audited for integrity;
- the cost of capital being based on actual data, with the cost of debt being derived from the market for each utility's bonds, as rated by S&P, etc., combined with the need to maintain an Investment Grade rating as part of the Licence.
- the cost of equity being based on a target value. A target equity IRR (Internal Rate of Return) for each utility would be set for each Review period, following negotiation and agreement, and computed by the relevant Model from dividends and capital gains/losses, and with equity' defined as both cash equity and subordinated debt.

In current market conditions, an equity IRR of, say, 9% p.a. might be publicly acceptable for a private monopoly public service. If, in the event, a higher equity return is recorded in any Review period, then up to a limit of, say, +1-2%, the extra profit generated would be kept by the utility shareholders, with anything higher than that requiring a lowering of tariffs for customers to compensate in the following Review period.

Likewise, if the equity IRR recorded is up to 1-2% lower than target, the loss would be assumed by the utility owners. Any equity IRR loss greater than that would be compensated by a higher tariff being allowable for customers in the subsequent Review period to restore the IRR to target.

By such a mechanism, assuming satisfactory operations and standards of service delivery and investment are achieved, excess profits and losses should be eliminated.

- The 'cost of capital' can then be calculated from above costs for equity and debt and the proportion of equity to long-term debt (including derivative liabilities on that debt) as quoted in the balance sheet. This value can then be used to arrive at the return on capital the utility might expect to achieve on existing assets for the next Review period.
- Tariffs would not include payments to shareholders or lenders during the construction period for investment in new assets, until such time as those assets are capable of delivering a service.
- The sale/purchase of the shares of 'off-Exchange' utilities would have to be publicly recorded as to the % of share capital sold, the identity of the purchaser, and the transaction value.

- Each year, utilities would be required to commission an independent reputation assessment based on customer opinion, to be published annually alongside the Accounts.
- Unquoted water and/or sewage utilities should also be required to hold one or two 'public' board meetings throughout the year, as do other UK public bodies.
- Discussion should be held with HMRC as to whether: (a) to allow utilities to apply the (high) interests cost of shareholder loans, or subordinated debt, as an allowable pre-tax cost; and (b) the use of advanced depreciation allowances to reduce current tax liabilities, when the incentive to invest in productive assets is embedded in the utilities' licence from the Regulator.
- Finally, the use of tax-havens for raising (bond) debt should be discouraged, if not outlawed. Whilst many UK utilities and companies raise bonds (e.g. "Eurobonds") via Channel Islands, Luxembourg or Cayman Islands subsidiaries, albeit such arrangements may be "UK domiciled" for tax purposes, this still raises the possibility that such funding is assisting in the recycling of funds domiciled in tax-havens.

Customers might rightly question whose money is it and why is it residing in a tax-haven? The opportunity for money laundering is clear. Utilities may argue that raising equivalent funds via the London market may be more expensive, - which is quite possible, - but the customers of UK public services should not be used unwittingly as a conduit for recycling, - or 'laundering, - deposits in tax-havens, whatever the reasons are for such deposits being there in the first place.

### **Conclusion:**

19. The above framework is not definitive, but hopefully provides some pointers towards what is needed and what customers might expect.

Food for thought. No doubt others will have their own ideas and suggestions, but to ignore that there is a problem in the first place could be seen as negligent.

There is now a window of opportunity through the Consultation for PR19 to reform the tariff-setting methodology for UK water and sewage services onto a more realistic basis and to avoid the errors of the past. It should not be missed.