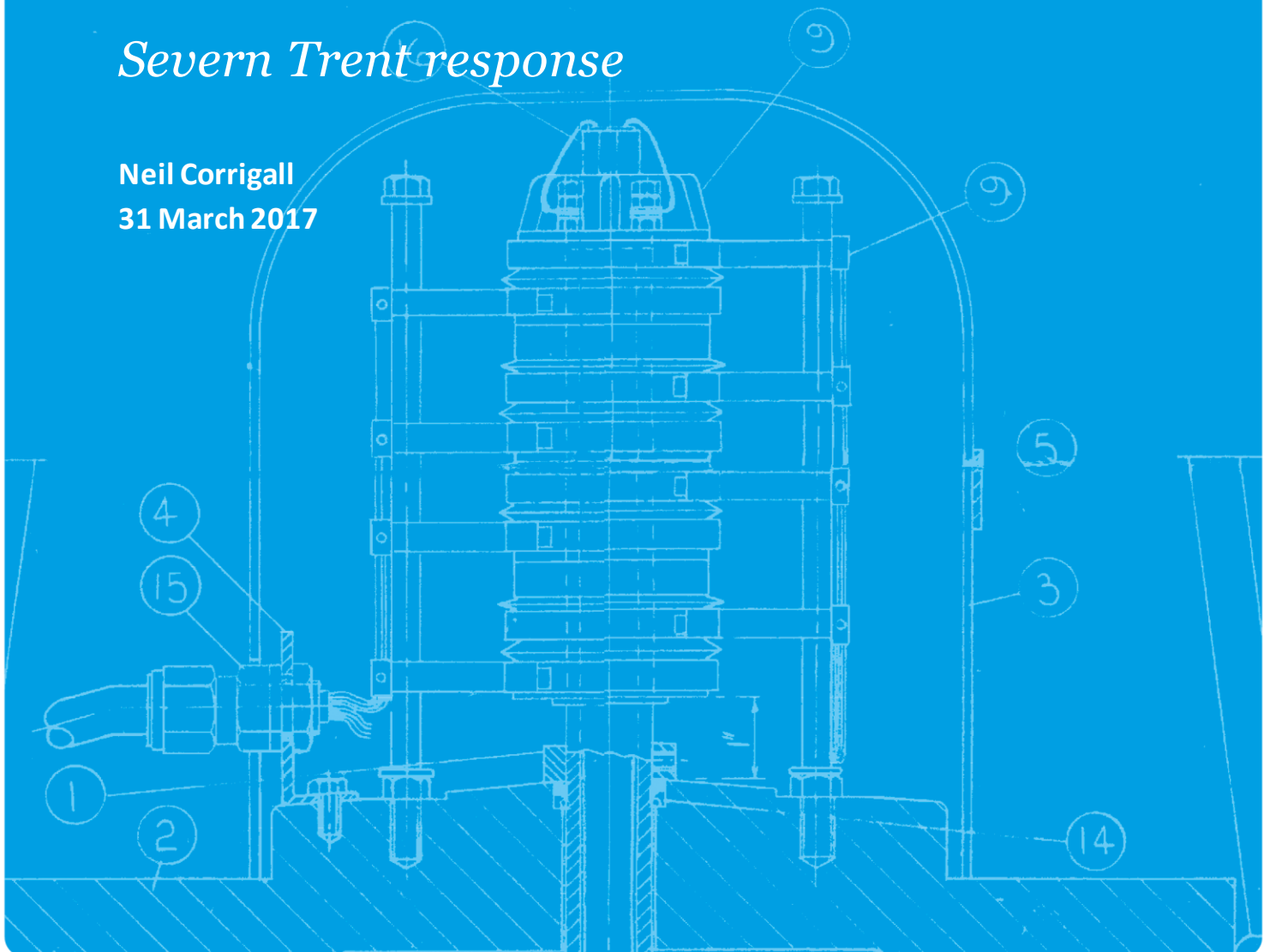


# Consultation on economic asset valuation for the bioresources RCV allocation at PR19

*Severn Trent response*

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## Consultation questions

**Q1 – Do you agree that the focused RCV allocation should be based on the economic value of assets as set out in section 3? If you disagree, please explain what variations to this approach, or alternative approach, you prefer and why it would be more desirable than our preferred approach. Please include in your explanation how it would meet the objectives of the focused allocation of pre-2020 RCV to the bioresources control.**

### Shared objectives

We fully support the objective of an effective and efficient sludge trading market. In particular our points are intended to:

- Avoid market distortions
- Encourage efficient new entry
- Avoid inefficient new entry
- Prevent customers paying for excess, unnecessary sludge capacity
- Use market forces to move activity to the most efficient providers (whether new entrants or incumbents)

The points we make reflect areas where we believe the market will be distorted and made less efficient due to the approach taken within the consultation. We also suggest how the efficiency issue can be improved by modifying that approach.

### Concerns with the approach

The approach to costs appears broadly appropriate but adding income to the RCV could have perverse effects. We believe the likely impact will be either removing the opportunity for long term trades or reducing the number of trades and increasing their average cost.

We identify three categories of concern, each of which is expanded below:

1. Allocation of economic value to assets based on activities which reflect the commercial approach and risk appetite of the owner rather than the underlying asset capabilities.
2. Distortion of the sludge capacity market through inclusion of renewable energy incentives within the asset valuation to encourage inefficient new entry.
3. Including economic value of energy incentives to increase RCVs and potentially distort renewable energy markets overseen by Ofgem.

#### 1. Allocation of economic value to assets for activities which reflect the commercial approach and risk appetite operational aspirations of the owner rather than the underlying asset capabilities

Including existing income streams in the assessment of economic value means that identical assets can be valued at different levels depending on how risk seeking and commercially astute an incumbent has been, despite the underlying identical nature of the assets. Use of spare capacity for tankered trade waste would fall into this category as would income from sludge to land. Since these income streams are a reflection of the

commercial capabilities of the asset owner rather than the asset's intrinsic capability we consider that this should not be part of the RCV setting calculation. By including income within the calculation, Ofwat is implicitly assuming that all WaSCs are fully exploiting the income potential of their assets. However Ofwat's own assessment of the market in the December 2015 and May 2016 Water 2020 consultations found that this is not the case *"there are unrealised optimisation opportunities at present would seem to indicate that there are market failures or barriers that are impeding this"*.

Including non-appointed income forecasts beyond 2020 within RCV penalises WaSCs which have managed to share fixed costs between their customers and other revenue streams. We also observe that the contracts for such income streams are short term in nature and unlikely to have the same duration as appointed treatment. In many cases current contracts may not endure beyond 2020 and estimating future income streams will be highly uncertain.

We believe that including the impact of these income streams in an RCV valuation is inappropriate and could also impact on the operation of those tanker trade waste and sludge to land markets.

## 2. Distortion of the market through inclusion of renewable energy incentives within the asset valuation to encourage inefficient new entry

The approach to include energy incentive income streams in the economic valuation could lead to a perverse situation where companies with the lowest net operating costs may have to set prices higher than less efficient companies. This would encourage inefficient new entry and increase overall costs to customers as they would be required to pay for efficient legacy capacity in the pre-2002 RCV as well as newly entered, but unnecessary capacity.

The examples below illustrate why we believe a methodology that uses income to increase an RCV valuation are not appropriate:

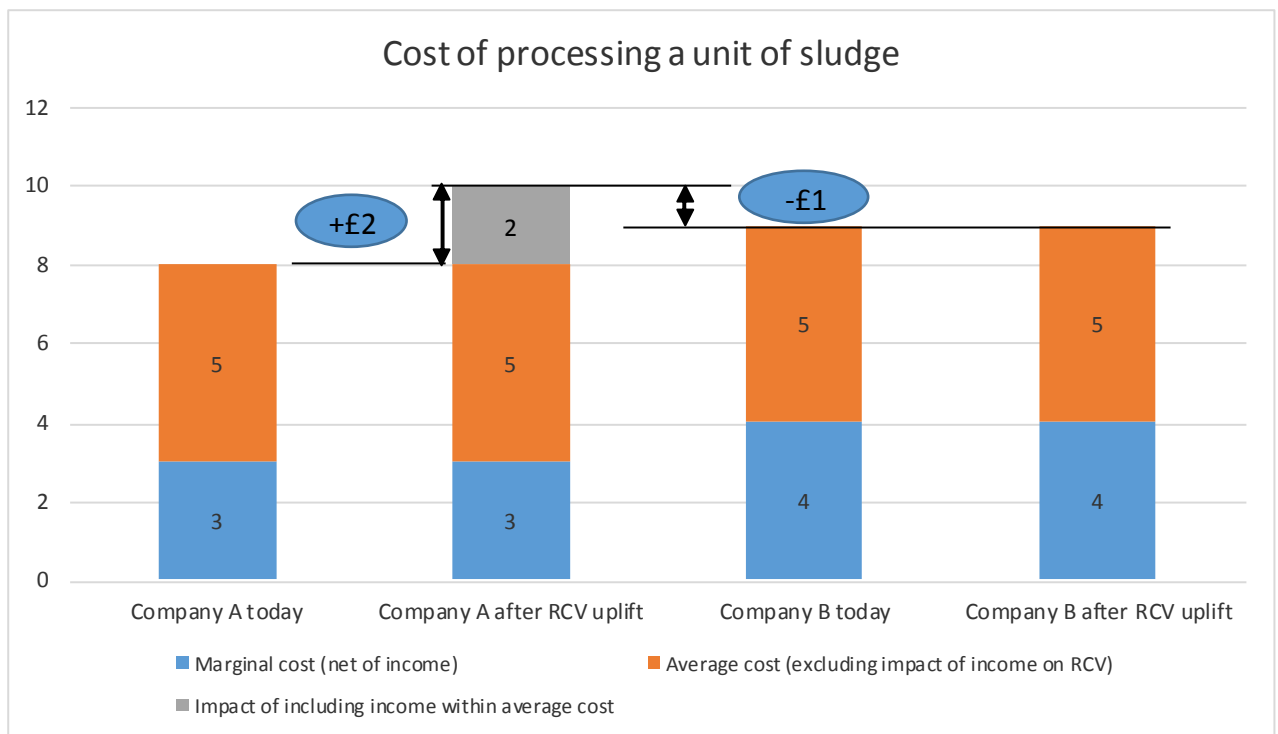
- i) Technologies such as incineration produce lower energy than Anaerobic Digestion ("AD"), do not produce the beneficial Sludge fertiliser and produce Carbon Dioxide in the burning. Accordingly the income and RCV from companies employing incineration will be lower than an income generating WaSC. On that basis they will be more price competitive for long term committed capacity trades (based on average cost plus return on regulated capital) and UK plc will lose energy production and natural fertiliser and suffer more carbon dioxide outputs

Impact of this approach on RCV and average costs is shown below:

	<b>Company A – has sludge income (efficient)</b>	<b>Company B – no sludge income (inefficient)</b>
Average cost to process based on net book value of assets	Lower	Higher
Impact on RCV of using this approach of capitalising future income	Higher	Lower
Average cost to process based on RCV approach	Higher	Lower

By increasing RCV to reflect future income stream the competitiveness of inefficient company B has improved compared to the competitiveness of efficient company A. It is theoretically possible that company B could now be more price competitive in the market, despite having higher processing costs, due to the RCV distortion.

**Figure 1: RCV impact on efficient Company A**

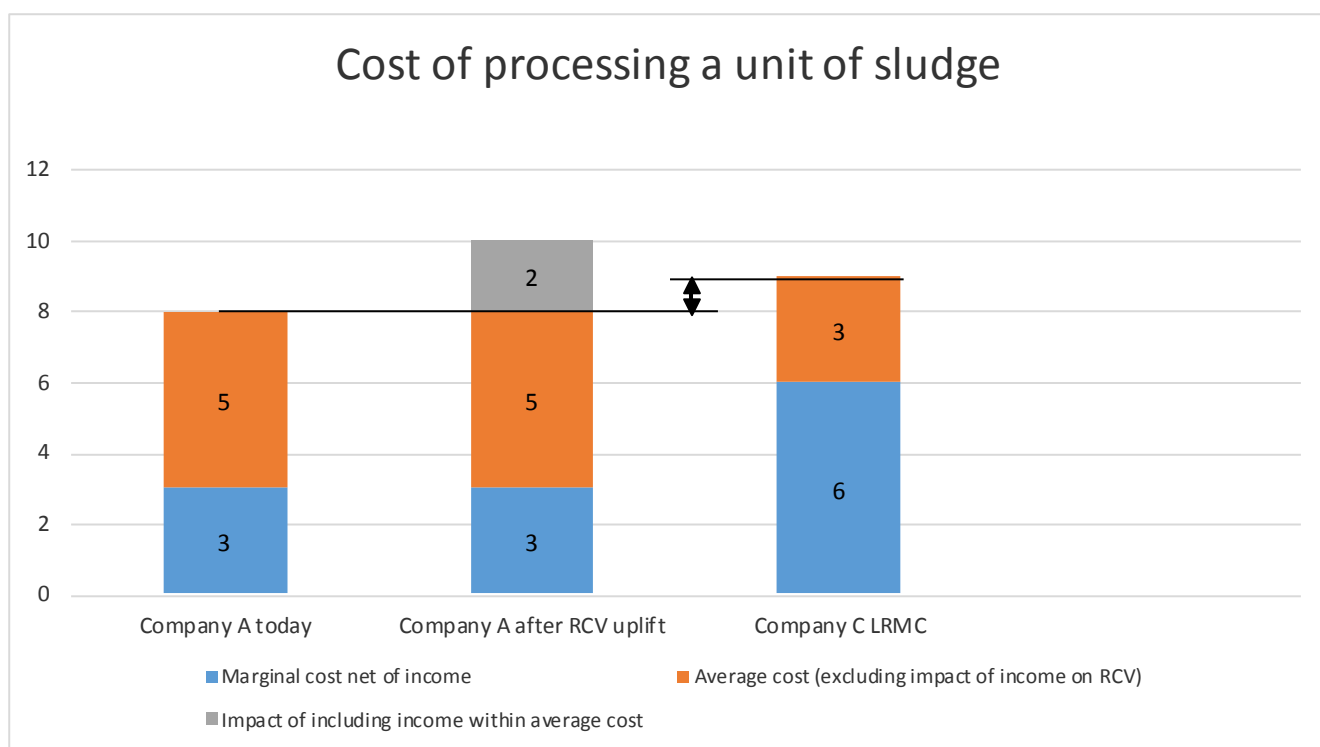


The impact of the RCV increase is illustrated above – it turns an efficient company A, which currently has the lowest net treatment costs, into the one that has the highest average price (based on fully allocated costs) after capitalised income has been added to the RCV. The steps are as follows: today Company A can process sludge cheaper than company B (£8/unit vs. £9/unit). The addition of income into the RCV impacts company A negatively such that the average price for committed capacity contracts (including a return on RCV) rises from £8 to £10. Company B is now able to tender into the market £1 cheaper than company A despite being less efficient. This ends in average prices being raised in the market and an inefficient outcome.

Artificially increasing the average cost of efficient incumbents has two further negative impacts on sludge trading markets:

- ii) Addition of income into RCV could increase the average cost an efficient company has to charge for committed contracts, meaning that trade may be suppressed. The issue is shown in figure 2.

Figure 2 – Impact on long term capacity trades



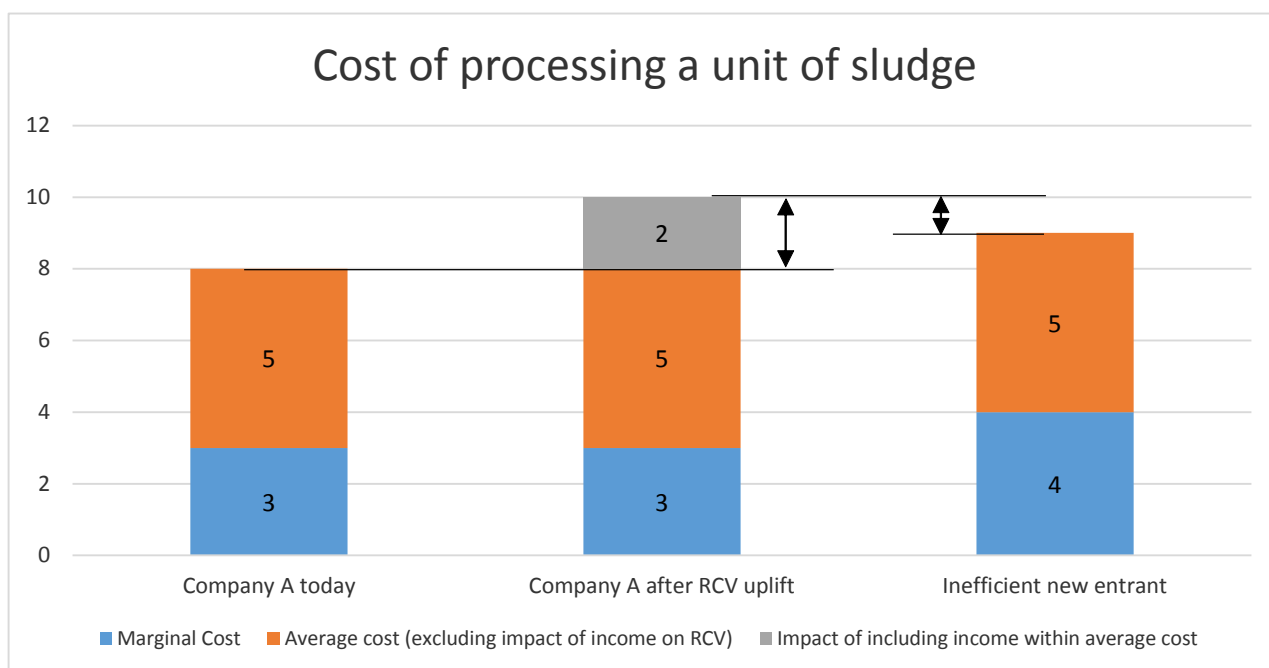
In the example above Company A has marginal processing costs (net of income) of £3/unit, additional allocated fixed costs of £5/unit. Company C has long run marginal costs (LRMC) of £9/unit (and no income).

Long term trades (where payments for committed capacity are required) would be possible because the average cost of Company A is below the LRMC of Company C. This difference incentivises both parties to enter a firm capacity trade with the likely impact of reduced costs for customers of Company C and the avoidance of unnecessary capacity being built.

After income is added into RCV, Company A's average costs are artificially increased to £10. The inefficient Company C now has a LRMC lower than the efficient company's average cost and so will choose not to trade (under a long term contract where payments for committed capacity are required). Company C is now incentivised to build new, unnecessary capacity rather than trade.

- iii) New entrants to the market may have an Average Cost lower than the artificially inflated WaSC Average Cost, but higher than the true Average Cost. On this basis the new entrant would be incentivised to inefficiently enter the market, resulting in higher overall costs to the system as shown in Figure 3.

**Figure 3: distortion to encourage inefficient new entry**



In this example, the new entrant has a less efficient cost structure than Company A. The new entrant will choose to inefficiently enter as Company A would need to recover its full cost including the uplifted RCV and this increases the overall costs of the system.

### 3. Including economic value of energy incentives to increase RCVs could potentially distort renewable energy markets

The Government (through Ofgem) put in place renewable energy incentives (ROCs and FITs) in order to incentivise WaSCs (and other operators) to encourage investment in latest generation renewable assets. In the absence of these incentives, the cost of building these assets might otherwise have been prohibitive. By artificially inflating the RCV of those WaSCs that were leaders in the investing in these beneficial assets, Ofwat is effectively undoing the incentives that Ofgem put in place. This could result in a distortion to the renewable energy market for new capacity. From a price setting perspective, including the full value of the energy incentives within capital charges means that - over the long term - fully allocated charges offset any energy incentive benefit, increasing the level of charges and encouraging inefficient entry.

For example, if licencing arrangements in the future allow NHH retailers to source their sludge services from alternative sludge providers, WaSCs would be required to charge a fully allocated cost, FAC, (including a high RCV) in line with Condition E. A new entrant could price as low as marginal cost and by having a high RCV allocation within the FAC, it may be better value for the NHH retailer to contract with a new entrant even if this creates unnecessary new capacity (as set out earlier in Figure 3). The income not recovered from NHH retailers needs to be rebalanced onto the remaining customer base, increasing the overall cost of the system.

## **Conclusion:**

The net impact of including income would be:

- Fewer trades, as prices offered by efficient companies would be too high
- Any trades that do occur are likely to be at a higher price due to the artificial increase in the RCV

- c) The market could gravitate to those WaSCs that make the most improvement post 2020 and not to the WaSCs that produce the best outputs per unit of cost. Accordingly the market created could be an artificial one where the 2020 base line is biased to less efficient companies in the market

### **Our proposal:**

Retain the existing methodology but limit the RCV to a reflection of costs. Accordingly we propose Ofwat should exclude from the valuation any income which is a product of previous management policy and not asset capability – i.e. exclude Tanker trade waste income, sludge to land income and ROC income.

Whilst this may result in a lower RCV than the current approach, it would avoid distorting markets. The consultation states that setting too low an RCV could have the consequences that competition and new entry by other organic waste (OOW) providers is not encouraged or that incumbents make gains from disposing of legacy assets. We think customers are already protected against these two concerns. Firstly, incumbents have a requirement to comply with Competition Law irrespective of RCV allocations when setting price and non-price terms and hence a low RCV should not deter efficient competition and new entry where these prices are set appropriately. If they are not set appropriately, Ofwat have the existing concurrent competition powers to investigate and intervene. Secondly, disposal of protected assets requires Ofwat consent; Ofwat has checks and balances in place to ensure these assets are no longer required for the undertaker to fulfil its duties. Customers also receive a share of any asset disposals.

## **Q2 – Do you agree that companies should consider impact on customers and markets and propose an alternative RCV allocation if this will better protect customers, including by promoting a level playing field for markets?**

We agree that companies should fully consider the impact on customers and markets of the RCV allocation. The impact on markets has been discussed under question 1. The impact on customers is difficult to quantify at this stage.

The level of the bioresource RCV could affect wholesale tariffs that are based around the Mogden formula. In theory, a higher RCV allocation to sludge should increase the “B” (Biological) and “S” (Sludge) elements of the charge, so trade effluent customers would pay more or less depending on the composition of their effluent.

In addition to an impact on trade effluent (TE) charges, there could also be an effect on regular sewerage bills, which are kept in balance with TE by calculating the TE charge that would apply at a standard strength. Discounts to large users can also be based upon the fact that the majority tend to connect to larger trunk sewers rather than the local network. The reduction in conveyancing costs is reflected in the “R” (Reception) element of their charge.

Although there are multiple potential effects on tariffs, in practice we think that these will be small. Sludge is a relatively small portion of the wastewater value chain, and the return on the assets is in turn a low proportion of the overall revenue that would be allocated to the Bioresources control. In terms of the overall impact on customer charges, the impact of the bioresource allocation might be relatively small but the effect on this market could be significant, as noted in response to Q1. Overall, we consider that an efficient effective market is likely to benefit customers more than a market where prices are kept artificially high (or artificially low).

**Q3 – Do you agree that the assumptions in table 4.1 are appropriate for companies to use for the valuation exercise? We welcome any comments on these assumptions; suggestions of further assumptions you consider all companies should use; or requests for clarification. If you disagree that any of the above assumptions are appropriate to be used by all companies please explain why and if relevant suggest an alternative.**

The assumptions appear reasonable but perhaps not sufficiently detailed. The concerns we would have relate to the range of interpretations that companies could within the definition of “dominant technology”. A company with a site where traditional digestion is the dominant technology could for example interpret the hypothetical asset as a like-for-like replacement and use traditional digestion; or they could interpret it as leading edge. There appears to be an argument for both interpretations depending upon the proposed investment strategy (post 2020) at a particular site.

- Point 1 of the approach suggests interpretation of assets as leading edge would not be appropriate (our emphasis) “Estimate the cost of the hypothetical new assets that will deliver the same capacity as actual assets on each site”
- Paragraph 20 of the support document supports an interpretation for leading edge technologies: “There may be significant differences between the hypothetical assets assumed for the hypothetical new-build costs and the actual assets owned by a wastewater company”

To avoid this material difference in interpretation, further guidance from Ofwat would be useful.

Given the proposed investment strategies, post 2020 are being developed as part of the PR19 activity and the submission timescale for this RCV reallocation is before the PR19 work is complete, we would propose that asset strategy post 2020 should be ignored in determining the hypothetical assets and associated STC valuations.

On a separate note, it is probably appropriate to mention in this section the difference in valuations that could arise from different industry wide planning assumptions made by different companies. It would be beneficial if Ofwat were to provide industry wide planning assumptions through an Information Notice such as assumptions for volume growth caused by the impact of quality schemes.

**Q4 – Do you agree that the assumptions in table 4.2 are appropriate for companies to use for the valuation exercise? We welcome any comments on these assumptions; suggestions of further assumptions you consider all companies should use; or requests for clarification. If you disagree that any of the above assumptions are appropriate to be used by all companies please explain why and if relevant suggest an alternative.**

There are no assumptions included in respect of population growth and increases in volumes due to changes in process required to meet new discharge standards. Guidance from Ofwat in these areas would assist in standardising the outputs and comparability across companies.



## **Q5 – Do you have any further suggestions of potentially useful cross checks, beyond those presented in table 4.4 that companies may want to consider?**

The cross-checks as outlined in the consultation are alternative methods of valuation. This list is fairly exhaustive and in some cases we do not think that some of these potential methods are worth exploring. For example, we agree that there is limited value in using a gross MEAV approach – although it might produce a different outcome to net MEAV we do not see how this represents an improvement or how this approach might better support the new market. Net MEAV is a basic valuation approach and a split based on expenditure has some logic in that it would allocate returns in proportion to the cash requirements of the business.

In our view, the more important cross-check will be the effect that a given valuation has on the prices borne by customers of the incumbent and the impact on the market. As we set out in response to Q1, we are concerned that placing a high valuation on assets where energy generation is already installed may have a perverse effect – making the company's average prices high and therefore being relatively inefficient in the market due to a regulatory imposed distortion.

## **Q6 – Do you have any comments on our timetable?**

To ensure sufficient accuracy and consistency in the analysis and cross checks as well as meeting the robustness of Board assurance requirements, there are merits in extending the submission date from end of September to end of November.

## **Q7 – Do you have any comments on our assurance expectations?**

The proposals are in line with the assurance we would expect to provide our Board, given the nature of the information required. As this is a new information requirement, the form of the Board Statement will be important and, as noted by Ofwat, allow Boards to properly explore any risks, material assumptions and weaknesses.

## **Q8 – Do you agree that companies should publish information on their websites to allow other stakeholders to comment, and when this could happen?**

We believe it is appropriate to publish information that facilitates Sludge trading, except where that information is commercially sensitive. Appropriate information would include location of Sludge Treatment Centres (and dewatering sites), characteristics of sludge that can be processed and whether there is capacity to process sludge imports.

The situation in respect of publishing granular information from this RCV reallocation exercise is less clear with arguments for and against sharing such information.

In favour of information sharing:

- Market theory suggests markets perform best where there is perfect knowledge. We also recognise that in reality markets with more informed participants typically function better.

Against information sharing

- There are wider competition law concerns if excessive information is published that could give competitors insight into other companies' cost or pricing approaches. Ofwat would need to consider

these issues in the round, especially given the nature of the service being regulated where competitors need to comply with common pricing approaches required for example under Condition E.

- Some of the cost information would by definition be commercially sensitive in a market environment and it would be unusual for companies in a competitive market to publish such granular cost information.

We believe that it is not necessary for Ofwat to require this information to be published in order to achieve an active, efficient market – the commercial incentives to companies to trade should be sufficient. Given the wider issues set out above we would suggest publication should not be required at this stage - if the market does not develop as Ofwat wishes, publication of such information at a future point is always an option.

### **Q9 – At what level of detail do you think that this information should be published? Please comment as to what you consider the benefits or disadvantages to companies publishing information at a site level?**

We believe the information we have identified at question 8 should be published at a STC site level.

### **Q10 – Do you have any comments or require any clarification on the proposed tables? Where you have alternative proposals, please set out how this meets the objectives of the asset valuation for the purposes of allocating the legacy wastewater RCV to the bioresources control.**

As referred in our answer to question 3, advice by Ofwat on future assumptions (sheet “6. Site Inputs”) would be beneficial for common comparisons.

On sheet “4. Site data STC” clarity on the following would be beneficial:

- The relevant period for the quoted volume size bands. Assumed per annum
- The point in the process Ofwat would like us to advise “volume produced” – e.g. into or out of digester