United Utilities response to the Ofwat consultation:

Economic asset valuation for the bioresources RCV allocation at PR19

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Introduction

We welcome the opportunity to comment on Ofwat's consultation on the economic asset valuation for the bioresources RCV allocation at PR19. We support the overall principles set out in the consultation. Our comments relate to the detail of the implementation of the proposed approach, and are intended to ensure that the objectives set out in the consultation can be achieved. We would be happy to discuss with you any of the issues which we have raised.

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.

We support the proposal to use a focused RCV allocation based on the economic value of assets. This will achieve the objective of ensuring that the overall price for WASCs' sludge reflects market price, thereby creating a level playing field for markets.

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 consider that the proposed approach will achieve a level playing field for markets. It is unlikely that any alternative approach will achieve that objective.

There will be some impact on customer charges, through a change in the balance of charges between bioresources and the rest of the wastewater service. The main potential effect will be on some trade effluent customers. We will make an assessment of the impact on charges. However, we consider it likely that this will be manageable through phasing in any impact on charges, if immediate implementation would result in excessive increases in charges to any group of customers.

The proposed approach achieves the key objective and it is important that all companies apply the same approach. Therefore we consider that it is very unlikely that any alternative approach would be justified.

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.

Boundary of Assets definition

Table 4.1 states that "for the purposes of RCV allocation companies should use the definition in RAG 4.06". However, two of the statements in Table 4.1 appear to be inconsistent with RAG 4.06:

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- "All transfers between intermediate sites should be included within sludge transport."[1]

Our interpretation of 'intermediate sites' is between two Bioresources Sludge Treatment Centres. RAG 4.06 states for Sludge Transport that "transport within the sludge treatment plant or between sludge treatment plants is not included in this service, which is instead an activity of the 'sludge treatment' service."

- "Sludge assets (including storage for blending, mixing and consolidation with imported sludge) should use the 10% de-watering threshold for inclusion within the valuation."

Our interpretation from RAG 4.06 is that the following should be considered as Bioresources Sludge Treatment and therefore included within the Bioresources valuation:

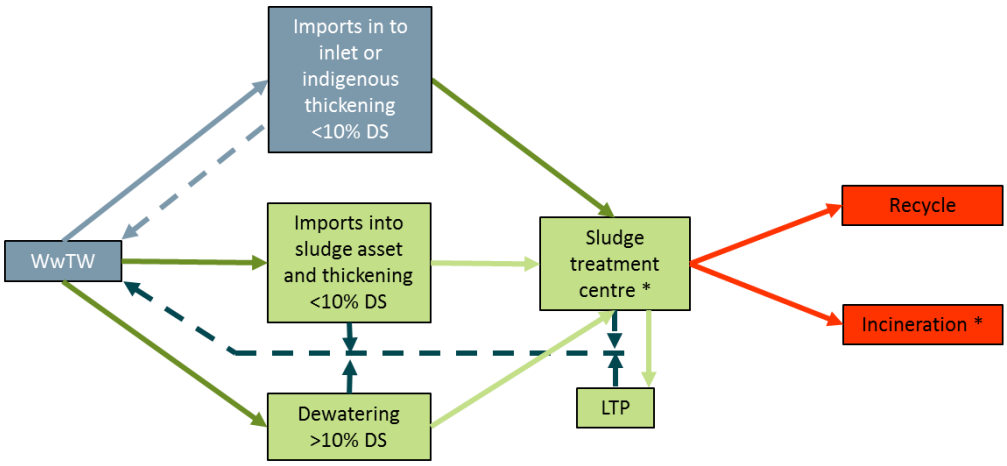
– Indigenous Sludge Thickening > 10% DS
– Sludge thickening < 10% DS where sludge has been imported into a sludge asset
– Transport of sludge from one sludge treatment centre to another sludge treatment centre

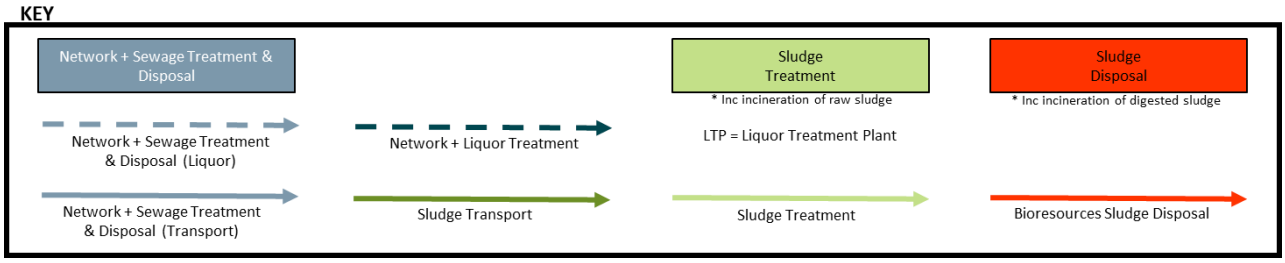
We agree that there needs to be consistency between RAG 4.06 and the definitions for asset valuation so clarification in the final valuation guidance would be valuable.

Treatment of Sludge Liquors

We would like to confirm the approach to sludge liquor treatment. RAG 4.06 Network+ sludge liquor treatment states "excludes liquor treatment which is done at a self-contained sludge processing centre". However, all treated liquors (including from a liquor treatment plant) are returned to Wastewater Network+ flow. We would expect a Liquor Treatment Plant to be owned and operated by the Bioresources price control and therefore within Sludge Treatment not Network+ sludge liquor treatment. Separate Liquor Treatment Plants would therefore be included within the Bioresources valuation.

This is demonstrated by the following diagram:





[1] RAG 4.06 – Guideline for the table definitions in the annual performance report, Ofwat, October 2016

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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.

Land valuation and prices

We believe that a simpler approach would be for land to remain in Network+ ownership, with bioresources paying for use of the land. This would:

- Avoid piecemeal ownership of land, where sites are jointly used by Network+ and bioresources.
- Simplify greater separation of functions, if the market framework develops in this way.
- Avoid any issues if the use of land on a common site changes between Network+ and Bioresources, e.g. if sludge treatment is relocated between sites.
- Retain any historic, often pre-privatisation, land contamination issues being transferred into the potentially competitive part of the business.

If land is to be valued in the bioresources business, then we believe that there is a more appropriate source for values. In the document there is a link to the February 2015 DCLG document on land prices. We believe that the more recent document from December 2015 should be used.

The February 2015 document has only an average over the whole of England and is based on January 2014 valuations.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407155/February_2015_Land_value_publication_FINAL.pdf

The December 2015 document has regional prices for industrial land and is based on March 2015 prices.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/488041/Land_values_2015.pdf

A regional land valuation is, in our opinion, essential to ensure a level playing field for new entrants. If regional land prices are not included a new entrant will preferentially target regions where industrial land is cheaper and may be priced out of competing with companies where the regional land price is high.

Regional pricing is consistent with the Reckon – Jacobs recommendation:

"137. (d) Companies might look at figures produced by the Department for Communities and Local Government, which provide high-level estimates for industrial and agricultural land value **across different regions** in England. It may then be necessary to consider adjustments for more specific factors that affect the value of land available for sludge activities (e.g. contamination)."[2]

Shared services and management and general

The consultation proposes that "companies should also include in the sludge asset valuation a proportionate allocation of other business assets that would be required by a separate sludge business, such as central IT infrastructure, HR and finance systems, head office buildings… "

[2] Support to allocate the bioresources RCV, Reckon / Jacobs report for Ofwat, February 2017

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This differs from the requirement in RAG2 on allocation of capital costs between price control units, which states that: "Where an asset is used by more than one of the price control units, it should be reported in the price control unit where the principal use occurs. This price control unit should then make a recharge to the other services reflecting the proportion of the asset used by those services. The cost of the recharge will be reported as an operating cost within the other services"[3].

We consider that there is a case for either approach but that there should be consistency between the valuation approach and RAG2.

Infrastructure assets

The consultation suggests that infrastructure assets should be valued on the basis of a new build construction cost. This would be a satisfactory approach for most companies where, as noted in the consultation, the value of infrastructure assets is very small. For UU, there is a significant value for infrastructure assets within sludge treatment. Our key infrastructure asset, the Mersey Valley Sludge Pipeline, brings together many of our sludge treatment works into a single highly-integrated system. This is not what we, or an entrant, would build today. It was originally constructed to dispose of sludge to sea, and its use was changed (to make effective use of an existing asset) to take sludge to the Shell Green incinerator following the discontinuation of the sea disposal route.

In order to achieve the objective of aligning our overall price for sludge with market price, we consider that the market value approach should be applied. We would welcome the opportunity to discuss the valuation of this system further.

Remaining economic life

The consultation suggests that the most robust way of assessing remaining economic life "could rely on a condition based approach, rather than the remaining accounting life which may be a conservative estimate". We agree that it should not be based on remaining accounting life. However, obsolescence, performance, and the consequences of asset failure should also be included in determining remaining asset life. The industry approach using the Common Framework for Capital Maintenance Planning takes these factors into account as well as the condition of the assets. We use this approach in determining our base expenditure for PR19 and propose to use it also to support our RCV allocation work.

Gross to Net Value calculation – the economic value of the remaining lives of existing assets

We believe that a straight-line depreciation approach to adjust gross to net values would be both simpler and more reflective of the economic value of assets than the proposed adjustment based on present value calculations.

Older assets normally require more maintenance and cause a larger number of system failures. We do not replace assets because they have reached the end of their engineering or accounting lives, but because they have become inefficient, unreliable or obsolete and hence expensive to operate. An approach which attributes greater value to later years does not take account of this. Attributing greatest economic value in the last year of life does not seem reasonable.

This point is noted in the Reckon / Jacobs report: "A straight line approach would not take account of the potential for assets to degrade over time in a way that significantly affects the value generated from them. For example, if the requirements for inspection and maintenance tend to increase with the age of the

[3] RAG 2.06 Guideline for classification of costs across classification of costs across the price controls, October 2016

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asset, or with its usage, but the value of services produced by the asset is constant over time, then the value generated each year (e.g. reflecting revenues less running costs) would gradually decline over time".

This report is, therefore, suggesting that depreciation could be faster than a straight line approach, rather than the slower approach proposed in the consultation.

The proposed non-linear relationship between economic value and remaining asset life is also likely to create anomalies because the level of aggregation at which the economic value is calculated is highly influential. For example, suppose that:

- A company has two identical assets except that one is brand new and the other one at the end of its economic life, say 20 years.
- Suppose that the economic value of a new asset is 100.
- The economic value, separately valued, is 100 in total (100 plus zero, for the two assets).
- Applying the proposed methodology, the average remaining life of the composite asset is 10 years and the asset value of each asset is 58.8 (since a 10-year old asset with a 20-year life is valued at 58.8% of the new asset cost),
- Therefore if valued at an aggregate level, the value of these assets is 117.6, which is higher than the two valued independently.

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?

Comparisons with rolling forward PR09 valuations and with post-privatisation spend have a limited role, in view of the changes in technology in this area. The most valuable cross-check is to demonstrate consistency with recent spend, in terms of unit costs of capacity.

Q6: Do you have any comments on our timetable?

Taking into account the amount of time which will be needed for assurance and board overview, we consider that submission a month later would ensure that robust results can be produced. We consider that the significance of this issue requires that sufficient time be allowed, and that later submission would not disrupt the overall PR19 timetable.

Q7: Do you have any comments on our assurance expectations?

We consider that the assurance expectations are reasonable.

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

Companies should publish their overall valuation, which would enable stakeholders to compare company values relative to their total sludge volumes.

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

We consider that valuations at a site level are commercially confidential and should not be published.

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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.

The extent of detail requested will make it hard to identify whether the overall outcome is reasonable. We consider that simplified, higher-level information would make it easier to assess the overall results of the valuation, in terms of whether it meets the objective of producing a price control aligned with market prices. More detailed information could be required where the overall results raise issues.

Our proposal for information requirements is that we set out the following information for each site:

Hypothetical assets	Actual assets	Present Value
Processes assumed		
Capacity assumed	Current capacity and actual volume	
Gross value		Gross asset value
Income	Income	Less PV of net income
Operating costs	Operating costs	+ PV of net opex
Maintenance costs	Maintenance costs	+ PV of net maintenance
	Value of spare capacity	+ PV value of spare capacity
		= adjusted gross value
		Net value = gross value x remaining life / life of hypothetical asset

Table 1 includes the 2020 valuation of hypothetical assets, then uses depreciation of actual assets to roll back to a March 2017 RCV. We consider that this combination of actual and hypothetical assets means that the March 2017 RCV will not be meaningful.

The consultation suggest that companies should focus the economic value adjustments on the Sludge Treatment Centre sites, and it should not be based on hypothetical assets for sludge thickening plants that are separate to Sludge Treatment Centres. We think that, for consistency, the approach of valuing hypothetical assets should also be applied to thickening plants.

The valuations in the consultation will be based on our PR19 costing systems. These systems are being recalibrated for PR19 using recent outturn prices and market testing, and this will not be complete in time for the valuation. We would welcome an opportunity to update the valuations of the hypothetical assets later in the process, after the initial valuation, to ensure consistency with the PR19 submission.

Some detailed comments on the proposed tables are set out below.

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No.	Document Page	Table	Line	Block	Column
1	General	All	All	All	All
Issue	The guidance makes reference to MEAVs and Economic Values, and to the Sludge and Bioresources businesses. For the avoidance of doubt, it would be helpful if: - MEAVs are used for the value of real assets rolled forward from the March 2015 MEAVs; - Economic Values are used for values of hypothetical assets as part of the revaluation exercise; - Sludge business be used in relation to any reporting pre-RAG4.06; and - Bioresources business be used in relation to any reporting post RAG4.06. - Thickening assets are referred to as bioresources thickening				
2	6 and 43	n/a	n/a	n/a	n/a
Issue	Page 6 of the consultation states that 'For the purposes of this bioresources asset valuation exercise we will use the services definitions in RAG 4.06'. RAG4.06 page 51 states that 'If incineration of completely treated sludge takes place, then this should be included in sludge disposal'. However, Figure 7.1 on page 43 shows incineration of digested sludge as a Sludge Treatment activity. We agree that incineration should be included within the economic value assessment, so can see a case for including this activity within treatment. The conflict between the definitions needs, however, to be recognised.				
3	44	1	All	All	All
Issue	Block C includes asset values from a combination of actual asset MEAVs (from Table 3) and hypothetical asset Economic Values (from Table 4). Block B includes deductions for expenditure and depreciation on actual assets for FY18 to FY20 based on that 'expected in company calculation of current cost accounts'. This is presumably, therefore, expenditure on actual assets. Block A, which is a calculation of Block C rolled back for Block B inputs and is therefore a combination of values of actual assets and hypothetical assets. Furthermore, the line definition states that the value is 'Copied from Table 2 Line 8' which is a roll forward of the Bioresources net MEAV at March 2015 i.e. based on actual assets. It is not clear from the guidance as to why the March 2017 value in block A is required. If it is required we suggest that the guidance should be resolved to clarify whether it is showing a MEAV based on actual assets or a combination of MEAVs (for Sludge Thickening Sites) and Economic Values (for Sludge Treatment Centres)				
4	44	1	All	B	All
Issue	The guidance on p44 refers to rolling forward for additions and disposals, but block B does not include any lines for disposals. If Block A and B are required disposal lines should be included in Block B.				
5	44	2	1	A	All
Issue	Line 1 refers to Bioresources MEAV. However, at March 15 we reported MEAVs for the Sludge Treatment and Sludge Disposal businesses. There are a number of sites which were part of the Sludge business but, following the publication of RAG4.06, are excluded from the Bioresources business being those sites which do not import sludge nor thicken to greater than 10% dry solids. For the avoidance of doubt, line 1 should state 'Sludge Treatment and Disposal net MEAV per regulatory accounts at March 2015'. The title for Block A should therefore also state 'Sludge/Bioresources MEAV'				

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No.	Document Page	Table	Line	Block	Column
6	44	2	1	A	All
Issue	Row title refers to 'Bioresources net MEAV' when the table has columns for GMEAV and NMEAV, so, rather than stating 'Bioresources NMEAV', it should state 'Sludge Treatment & Disposal MEAV'				
7	44	2	9 to 17	B	All
Issue	The title to Block B states 'Sludge assets split by upstream services - 2017' whereas row 17 states 'Bioresources net MEAV at 31 March 2017'. We assume that row 17 should agree to row 8, in which case Block B should be titled 'Bioresources assets split by upstream services - 2017'.				
8	44	2	9 to 17	B	All
Issue	The upstream services categories per RAG4.06 are 'Sludge Transport', 'Sludge Treatment' and 'Sludge Disposal'. Block B, however, introduces two new upstream services 'Intermediate sludge thickening plant' (Block C line 20) and 'Thickened Sludge Transport' (Block C Line 21). Our systems do not include classifications for these new services. We propose that the upstream services per RAG4.06 be retained for this table. We would, therefore allocate any transportation of sludge between Network+ waste water treatment works to Network+. If these upstream services are required classification guidance per RAG4.06 would be required.				
9	27	2	9 to 26	B & C	All
Issue	Shared services and management and general' - the approach proposed, of a proportionate allocation of other business assets, is inconsistent with that required in RAG4.06. For the avoidance of doubt, the guidance should make clear that this is a deviation from the RAG4.06 guidance.				
10	44	3	All	A	I & L, O & Q
Issue	We have assumed that Table 3 only needs to be completed for sites considered to be Bioresources and therefore any sludge sites which are considered to be Wastewater Network Plus sites per RAG4.06 (e.g. do not take imports nor dewater to greater than 10% DS) are excluded. If so, it would be useful to clarify this point in the table guidance for the avoidance of doubt.				
11		3 & 4			X and AI
	MWth should be MWh				
12		5	2	B	All
Issue	We assume that this line only needs to be completed for sites considered to be Bioresources and therefore any sludge sites which are considered to be Wastewater Network Plus sites per RAG4.06 (e.g. do not take imports nor dewater to greater than 10% DS) are excluded. If so, it would be useful to clarify this point in the table guidance for the avoidance of doubt.				
13	44-45	3 & 4	All	A	I, L, Y, Z and AA
Issue	We are assuming that Table 3 contains MEAVs based on a roll forward of the March 2015 MEAVs for Sludge Thickening Sites, whereas Table 4 contains Economic Values based on the hypothetical assets at the Sludge Treatment Centres. a) For the avoidance of doubt, could the guidance and tables refer to MEAVs for the former and Economic Values for the latter? b) What is the rationale for not requiring a calculation of the Economic Values for Sludge Thickening Plants? We would prefer to calculate an Economic Value for all Bioresource Sludge sites. The column headers of Y, Z and AA are unclear as they are unlikely to provide clear and consistent data in suitable units from WASCs. We would like clarity on the definitions of the following columns:				

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No.	Document Page	Table	Line	Block	Column
	• Column Y 'total volume received'; is the intention that this is the volume of sludge which is input into Bioresources thickening process from the incumbent and 3rd party? • Column Z 'Third party volume received'; is the intention this is the volume of sludge which is input into Bioresources thickening process from another WASC? • Column AA 'Volume produced'; is the intention that this is the output quantity of the thickening process? If so, as the units are in TDS not m3 this will be the same as the total of volume received (column Y). These points also apply for 2015/16 in columns AJ, AK and AL. We would like clarify on the requirement for column AB 'Population Equivalent Served'. Does this relate to: a) the population equivalent of the co-located WwTW where the Bioresources sludge thickening assets are located? OR b) the liquor being returned to the WwTW expressed as population equivalent? OR c) the population equivalent for all the sludge input into the process These points also apply for 2015/16 in column AM Column AC 'income treated as negative opex' is the intention for this to be income from energy generated and/or biosolids products following disposal? If so it is unlikely that there will be either of these at a thickening site. (Table 3 only).				
14		5	3	B	
Issue	Clarity is needed to understand what is meant by thickened sludge transport – our assumption is this means transport between two Bioresources Sludge Treatment Centres as detailed in our response to Q3. This aligns with RAG 4.06. This could be renamed as 'thickened sludge transport (accounted in sludge treatment)'.				
15		6			
Issue	In each block the following need to be defined to ensure consistency with RAG 4.06: 5. Sludge pre-treatment e.g. does this line include THP or sludge screens? These are very different scales of investment. 12. Liquor treatment (as part of sludge assets) the units of this can not be TDS/annum. We are happy to discuss if this should be a flow or a load metric. Transport by pipeline is not included in the scope of the above. We propose discussing separately how to account for this. This is referenced to in our response to Q4 (infrastructure assets).				

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