

United Utilities

Proposed approach to the water resources RCV allocation at PR19

January 2018

Contents

- 1. Overview and Executive Summary 3
- 2. Our approach 4
- 3. Options considered 4
- 4. Issues considered in developing the submission 9
- 5. Assurance..... 12
- 6. Transparency 13
- 7. Conclusions and proposed option 13
- Appendix A - Board statement..... 15

1. Overview and Executive Summary

This document presents our proposed allocation of the pre-2020 legacy RCV at 31 March 2020 to the water resources price control.

Our proposed RCV allocation to water resources is 12% (£453m) of the forecast 1 April 2020 total water RCV. This document sets out our approach to calculating this unfocused RCV allocation, including the other options considered and the justification for our preferred option based on economic value to the business. It also discusses the issues raised by Ofwat in its technical guidance¹ in relation to our chosen method of allocation.

Our chosen solution is, we believe, appropriate for our specific water resource position and is the best approach in terms of potential impact on competition and on wholesale charges.

Details of the assurance approach used with regards to the information contained in this proposal are included in Section 5. At the end of the document is a signed statement agreed by the United Utilities Water Limited (UUV) board of directors setting out the factors and assurance information considered in support of the proposed allocation.

In line with published timescales, we anticipate feedback from Ofwat on our proposed allocation by the end of April 2018 and will reflect this in our PR19 Business Plan submission due by 3rd September 2018.

¹ Water resources pre-2020 legacy RCV allocation at PR19 – technical guidance, Ofwat, January 2017

2. Our approach

We support Ofwat’s approach to allocation of the Water RCV, using an unfocused allocation of RCV to water resources, and giving ownership and responsibility to companies for how the RCV is allocated. We also support the consideration of a number of options and checks to determine the best approach, as set out in Ofwat’s guidance.

In determining the allocation, we have considered:

- Any potential impact on competition, including compliance with competition law, and on water trading.
- The impact on charges – as noted in the guidance, our charges already incorporate a return for each component of the value chain and any change in this could have an effect on charges.
- The valuation which would be appropriate to reflect our resource position relative to other companies.

3. Options considered

We have considered the following options:

- a. Roll forward of historic net MEAV
- b. Revaluation of net MEAV
- c. Gross MEAV
- d. Splitting pre-privatisation assets at a discount to the RCV and post privatisation assets at full value
- e. Historic expenditure – proportion of past expenditure, or operating costs and accounting charges for capital expenditure, incurred on water resources
- f. Proportion of future expenditure expected on water resources (totex or operating costs and accounting charges for capital expenditure)
- g. Economic value to the business

These options are considered in turn under the headings below.

Our assessment is based on costs and valuations following the latest RAG4 guidance. We have followed the detailed guidance on the distinction between balancing reservoirs and water resource storage reservoirs. This resulted in a number of assets being reallocated between Water Resources and Network+ in the 2017 annual performance report tables.

a. Roll forward of historic net MEAV (31% split)

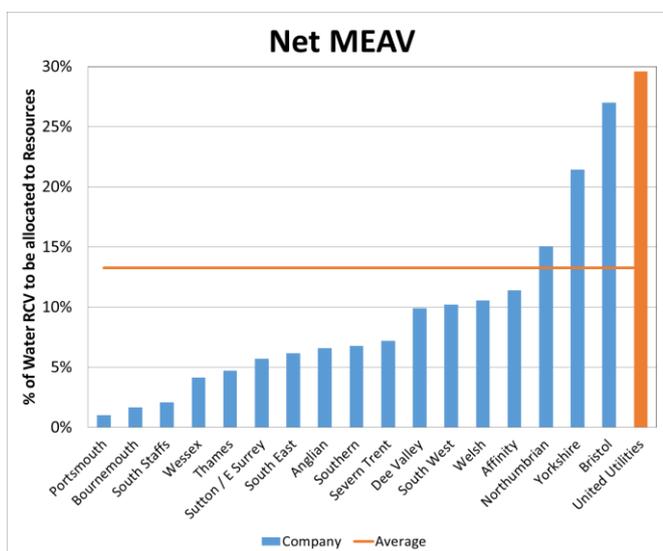
The guidance states that “as a starting point companies should reference their existing unfocussed allocation of water resources using net MEAV”. Companies in the south and east

Proposed approach to the water resources RCV allocation at PR19

tend to have lower MEAVs than those in the north and west (because there are more reservoirs and aqueducts, which have a high asset value, in the north and west). Our MEAVs are particularly high compared with other companies. This partly reflects the extent of our reservoirs but may also reflect differences in approach to valuation.

The RCV splits based on MEAVs are shown in the graph on the right (these comparisons do not reflect the latest water resources accounting definition but we would expect the results to be very similar with the new definition).

Given our surplus of water available, resource pricing on this basis would be out of line with relative regional economic values. These MEAVs reflect sunk costs. If we did need additional water, it is available at lower cost than in water-scarce areas. Although we may have water available for trade, the additional costs involved mean that water in our area has a lower economic value than in the south and east.



Therefore we do not consider that an MEAV basis is appropriate for splitting the RCV. We have, however, shown the result of applying this approach in the summary at the end of this section. We have continued to maintain our current cost accounting records beyond 2014-15. Although these are no longer required for regulatory submissions we have continued to use them for charge-setting purposes, and made appropriate adjustments for changes in the water resources boundary. These records are the basis for our net MEAV shown in the tables. The revisions to the boundary resulted in the movement of 31 reservoirs, with a gross value of about £1 billion, from Network+ to Water Resources.

On the basis of the current split of assets, 30.7% of net Water MEAV is attributable to water resources.

b. Revaluation of net MEAV (not applicable)

Ofwat’s guidance states that it does not require companies to undertake a revaluation of net MEAV but that if companies do choose to undertake a full revaluation of their assets, they should undertake this for their entire water wholesale asset base.

Revaluation would be a costly exercise and we do not consider it would produce significantly better results than use of existing MEAVs in terms of reflecting economic value. As noted in the guidance, there is considerable judgement required to estimate MEAVs for very old assets with long lives such as water resources, and the landscape and natural environment significantly affect the cost.

Proposed approach to the water resources RCV allocation at PR19

Therefore we do not propose to adopt this approach.

c. Gross MEAV (28% split)

Applying a gross MEAV approach would result in similar issues to using net MEAV. The proportion of gross water assets attributable to water resources is slightly lower with gross MEAV (28% compared with 31%) but the difference is not sufficient to justify using this approach.

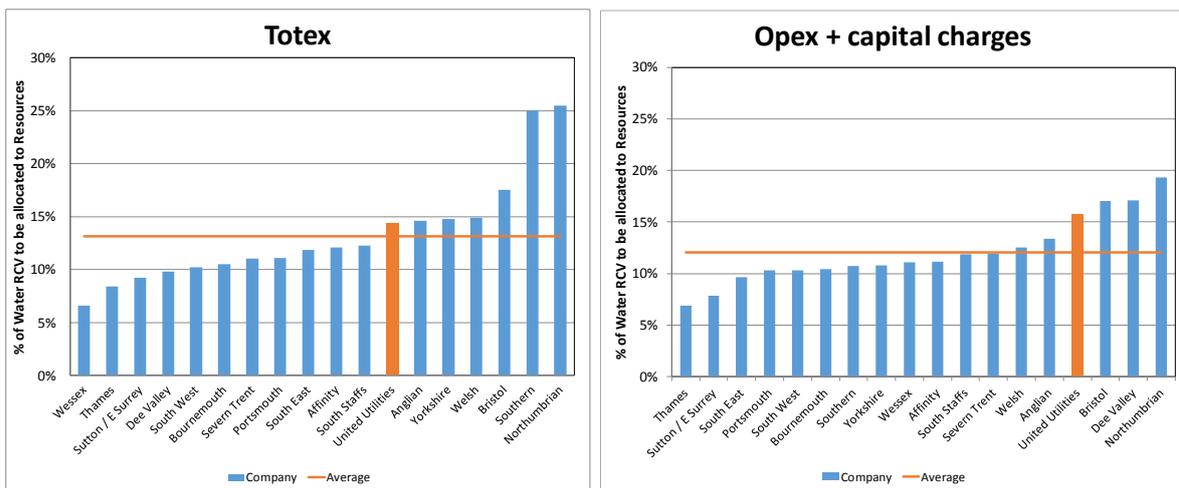
d. Splitting pre-privatisation assets at a discount to the RCV and post privatisation assets at full value (6% split)

This approach has a strong theoretical justification, in that it reflects the way in which the RCV has been built up. This approach is the basis on which our charges are currently set, so would avoid any impact on charges.

There are, however, some difficulties due to the reporting of services and cost allocations having evolved over time, and limited information about expenditure in the early years after privatisation.

e. Historic expenditure – proportion of totex / proportion of opex and capital charges (14% split(accounting charge)) or (13% split (totex))

We consider that an expenditure-based approach provides a more reasonable reflection of our relative resource position than an approach based on asset value, as indicated by the graphs below. It also reflects the overall part water resources has in the business.



In order to assess the split of total expenditure, we have used expenditure from 2011-12 to 2016-17, as reported in cost capture data tables submitted as part of the Annual Performance Report. These costs reflect the latest definition of the water resources boundary. This gives a split of 13.4% (including cash and atypical items) or 13.7% (excluding cash and atypical items).

Proposed approach to the water resources RCV allocation at PR19

For the approach using operating costs plus capital charges, the above graph uses 2014-15 data, as this is the most recent comparative information. However, we have reassessed the split for United Utilities from 2016-17 data. This gives an allocation of 13.0% to water resources.

f. Proportion of future expenditure expected on water resources (16% split)

We have reviewed the expenditure which we are projecting for water resources in our initial estimates for our PR19 business plan. We have only looked five years forward, as we consider that in relation to future expenditure over longer periods it is more appropriate to apply the approach of economic value to the business, in terms of long-run incremental cost. For the five years to 2024-25, 16% of projected total expenditure is attributable to water resources.

g. Economic value to the business (12% split)

The guidance suggests that economic value, in terms of the forward-looking net revenue stream (net of operating costs) from prices for water resources, should be considered. An approach based on economic value has the advantage that it would create access prices which would encourage efficient entry, in zones where there are no water resource schemes planned. In these zones, the average prices which derive from the price controls form the basis for access pricing, i.e. there is no additional compensation payment to reflect incremental costs.

Economic value has a circular element in relation to charges in area, in that future revenue depends partly on the RCV allocation. However, economic value can be considered relative to incremental costs. We agree that a company with high incremental costs should not have a low allocation of RCV to water resources.

We consider that incremental costs need to be assessed by taking a forward-looking view of costs to increase supply, including the capital costs involved in increasing capacity (i.e. Long-Run Incremental Costs, or LRIC). We have assessed incremental costs as part of the Water Resources Management Plan (WRMP), calculating average incremental costs (AICs) for each potential scheme, which are the average cost per unit of additional capacity for each scheme, including operating costs and annualised capital costs. We have used these AICs to assess an overall LRIC.

The overall LRIC depends on the increment of capacity used. The guidance notes that, where companies have supply demand surpluses at a point in time, the value of water for trading may need to be considered. In terms of potential trades, we have taken the potential price at which water might be traded from our costings of potential trades with Thames. The maximum potential trade is 180 Ml/d, but the trade could be smaller, or no water might be traded at all. If there is any trade, it is likely not to take place until AMP9. Some of the water would be provided from an existing surplus and from leakage control. In addition, there are some low-cost water efficiency schemes which would contribute to the overall trade.

Proposed approach to the water resources RCV allocation at PR19

We considered two possible ways of considering an average expected level of trade are shown below:

- assume an equal chance of trade at one of the levels offered to Thames in April 2017
- assume an equal chance of zero, half or all of the potential trade

Both these methods gave an expected level of additional supply capacity required for the trade of 44 MI/d.

Using the WRMP AICs for schemes which would be included within this capacity increase, which discounts benefits at 3.5% and costs at 3.6%, gives an average AIC of 12.8p. To provide some return for company risk, and some benefit to UU customers, then either adding 1% to the discount rate for costs or adding a 10% margin would indicate a price of 14p per cubic metre.

An allocation of 12% of RCV to water resources would produce this average price for water resources.

We consider that a higher allocation than this would risk inefficient entry. Access prices in our area will be based on Network+ prices (since we will not have any water resource schemes in AMP7). A higher water resource price will lead to a lower Network+ price, and encourage entry at a higher cost than the additional water resources which we could provide. In addition, new water resources are unlikely to be needed until AMP9. Similarly, a lower allocation of RCV to water resources would risk discouraging efficient entry.

A higher allocation would also lead to water resources being charged at a higher price internally than would be charged for the water resource element of potential trades.

Summary of results

The table below shows the results of the different approaches. As the table shows, approaches other than those based on MEAV all produce similar results.

Proposed approach to the water resources RCV allocation at PR19

Approach	RCV split		Average water resources price per cubic metre (AMP7 projections at 2017-18 prices)
	£m	% of water total	
a. Asset-based split - net	1,159	31%	21p
c. Asset-based split - gross	1,045	28%	20p
d. Post-privatisation investment at full value with pre-privatisation value discounted*	234	6%	12p
e. Historic spend - accounting charges split	469	14%	15p
f. Historic spend - totex	506	13%	15p
g. Projected spend - totex	600	16%	16p
h. Economic value to the business (based on LRIC)	453	12%	14p

*Current approach to RCV determination prior to WR RCV allocation exercise

We consider that the economic value approach should be applied. This would create the right water resource price for setting access prices and for alignment with potential prices for water trading, and minimise the impact on charges. It is also similar to approaches based on proportion of expenditure attributable to water resources.

4. Issues considered in developing the submission

In developing and reviewing the potential options for allocating the water RCV between water resources and network plus, we considered and reviewed a number of specific issues. In addition to the issues highlighted in the discussion of the options in Section 3 of this document, we also considered the following generic issues highlighted in Ofwat’s guidance:

- a. The definition of water resources
- b. Potential impacts on wholesale tariffs and bulk supplies
- c. The links to the WRMP
- d. The potential for reallocation at PR24

These are discussed below.

a) The definition of water resources

As part of the annual reporting process, we split the fixed asset register and regulatory accounts based on the boundary definitions within the Regulatory Accounting Guidelines 4.06 for 2016-17.

Proposed approach to the water resources RCV allocation at PR19

2016-17 is the first reporting year where this definition has applied but we have also split historical expenditure and asset data in line with the boundary definitions within RAG 4.06. The work was examined by as part of external assurance activities and confirmed to be consistent with the approach set out by the guidelines. The historical data is, however, for comparative purposes only, as we have chosen economic value as the basis for the valuation.

b) Potential impacts on wholesale tariffs and bulk supplies

As noted in the guidance, changing the return implicit in charges could affect the balance of wholesale charges between different customers. Water resources costs form a larger part of charges for large users and, in particular, for non-potable supplies than for potable supplies to household and small non-household customers.

The guidance states that companies should analyse the effects on charges and that Ofwat “would not expect to see significant disruption in historical tariff structures without strong supporting evidence and consideration to how to transition to any new tariff structure”.

We have analysed the effects by recalculating all the components of our charges and we have assessed the effects for all customer groups. We have adjusted both the amount attributable to return and to rates (as the calculation of rates is principally determined by return, so the allocation of rates should also be determined by return). Our current approach to setting charges allocates both rates and return on the basis of post-privatisation investment at full value with pre-privatisation value discounted.

For PR19 business plan financial modelling we propose to allocate rates on the basis of RCV allocation. The Regulatory Accounting Guidelines currently require rates to be allocated on the basis of GMEAV but we consider that this should be modified to reflect the creation of a separate Water Resources RCV.

We are proposing not to change the rate of RCV run-off, so there is no change in run-off in Line 8 of Table WS12b. This is because our run-off rate is based on current cost depreciation (CCD) on totex additions over the life of the assets. We consider that this approach should continue.

In broad terms the reallocation of RCV (12% to Water Resources based on economic value) would lead to increases in cost allocations towards Water Resources and away from Water Network Plus. We have modelled the effect on charges on the basis of:

- An allocation of actual Water returns, i.e. the basis which we would use if we were to apply the new allocation of returns to setting charges in 2018-19.
- An allocation of PR14 Determination Water returns, i.e. the basis used in Table WS12b (this produces the lower figures for the ranges shown below).

All the alternative approaches will increase the return, and therefore total revenue, attributable to water resources. Before making any changes to mitigate the incidence effects, our proposed RCV allocation would lead to increases of around 14-23% on water resource

Proposed approach to the water resources RCV allocation at PR19

charges, although there would be corresponding reductions in charges for Water Network Plus services (just under 2%).

Most customers receive a potable supply of water, using services from both business units – Water Resources and Water Network Plus – therefore their bills will not be significantly affected by the reallocation of RCV. For most customers, it makes very little difference to charges whichever approach is adopted. This applies to large users as well as to household and smaller non-household customers.

For non-potable customers, however, there is no offsetting effect because they do not pay for water treatment and treated water distribution. For approaches based on asset values the increase would be around 50%. Other approaches would still involve significant increases. On the basis of our proposals, the wholesale cost-reflective non-potable tariff is expected increase by around 10-15%, before any management of incidence effects. This would affect around 40 to 50 supply points (based on current non-potable supplies). In addition, we also currently have one bulk supply which only attracts the costs associated with Water Resources (our other current bulk supply agreements are for the provision of potable water), and without any management of incidence effects this supply could see an increase of 14-23% in the price charged.

We would not, however, implement the change until the Water Resources RCV is set and the new price control implemented, i.e. in 2020-21. At that point, the lower cost of capital will reduce the effect of the reallocation of returns. An overall reduction in prices, together with action to manage the incidence effects, should make the change in non-potable charges manageable on the basis of our proposed allocation. An allocation of RCV based on asset value would be much more problematic.

c) The links to the WRMP

As noted above, we have assessed economic value from average incremental costs for potential schemes considered for our WRMP, and have proposed this as the basis of the RCV split. Therefore our proposed split is consistent with the WRMP. We provided the details of the AIC calculations to external assurers as part of the assurance process into the determination of the RCV value.

d) The potential for reallocation at PR24

We consider that our proposals for splitting the RCV provide an appropriate basis for valuation of current water resource assets. Therefore it is unlikely that any reallocation will be required at PR24.

5. Assurance

We have applied the same risk based assurance framework for this information that we have adopted for our 2016/17 regulatory reporting, including our Annual Performance Report, and that we will be adopting for our PR19 submissions. This framework is described in more detail on our web site.

As a result of applying this framework we have adopted a three lines of assurance approach.

1. Data providers, their managers and business unit directors have produced and approved the data and audit trails that were developed to support the values and data reported within this submission. The reported data have been reviewed and signed off up to UUV Board level.
2. The Economic Regulation team have provided oversight to the process and reviewed the information and audit trails, with UU Corporate Audit undertaking a review of the adequacy of the approach to assurance and the completeness of the assurance activities.
3. Deloitte has provided independent assurance over the approach that has been adopted to calculate the six options available and confirmation that this have been calculated in line with the Ofwat guidance.

Independent assurance undertaken by Deloitte sought to identify the extent to which:

- The approach taken to develop a proposed Water Resources RCV allocation reflects the guidance provided by Ofwat.
- The material assumptions and uncertainties that have been identified through this process, have been set out in the report and the table commentaries included in the submission.
- RCV Value has been calculated using appropriate methods that meet Ofwat's methodology expectations, particularly in relation to Modern Equivalent Asset Valuations (MEAV);
- Data used for the RCV allocation has been sourced from published and assured sources, or is subject to relevant separate assurance;
- Any assumptions in the Water Resources RCV calculations / allocations have been documented, approved and consistently applied;
- The disclosures made in relation to RCV are supported by relevant evidence, including describing the rationale for any adjustments to historical information;
- Long term strategies for Water Resources price controls have been developed and documented using an effective governance process;
- Information contained within the Water Resources Management Plan (WRMP) is consistent and aligns to the overall PR19 business plan;

Proposed approach to the water resources RCV allocation at PR19

- Comparison of the previously reported net MEAV as a proportion of the total water wholesale net MEAV has been completed using appropriate methods.

Deloitte prepared an initial draft report, setting out a number of issues to be addressed. Their final report was presented to the U UW Board, and confirmed that all the significant issues raised were addressed and concluded that:

“U UW have provided evidence and supporting narrative which sets out the proposed approach, consideration of Ofwat’s potential methodologies and factors for further consideration. On the basis of the procedures we performed, there is no evidence to suggest that the process followed by U UW is inconsistent with either the Ofwat Regulatory Accounting Guidelines (RAGs) or the Water Resources RCV technical guidance.”

Deloitte’s report is included as Appendix B to this overview document.

The Corporate Audit review concluded that:

“We are satisfied that the assurance approach adopted sufficiently supports the proposed Board Statement, and has been complied with, including a “ clean” audit report from Deloitte. Based on our sample testing we are satisfied that the first line assurance activities have been completed sufficiently and that data has been calculated in line with the methodology statements”.

The results of the assurance process were presented to and reviewed by the U UW Limited Board, which developed and signed an assurance statement in support of this submission. This assurance statement is provided as Appendix A to this overview document.

6. Transparency

We believe that it is important that the process taken to value WASC’s water resource assets and to provide a level playing field for water resources trading is transparent. This will both support stakeholders in understand WASC’s proposals and will support WASC’s in developing better and more consistent RCV allocations for PR19.

In support of this we will be publishing published this overview document on our [website](#), which sets our proposed RCV allocation to water resources of £453m (12%).

We are also planning to publish the market information data, as set out in Ofwat’s draft market information guidance (published in April 2017), on the [Water Resources Management Plan](#) section of our website containing our draft Water Resources Management Plan.

7. Conclusions and proposed option

We consider that, on grounds of economic efficiency, the economic value approach should be applied, as this would:

- Create the right water resource price for setting access prices and for alignment with potential prices for water trading.

Proposed approach to the water resources RCV allocation at PR19

- Minimise the impact on charges.
- Reflect our resource position relative to other companies.

This approach is also similar to approaches based on proportion of expenditure attributable to water resources.

Our proposed split for the Water RCV is, therefore, based on a 12% allocation of RCV to water resources. This produces a Water Resources RCV of £453m and a Network+ RCV of £3,326m at 31st March 2020 (at year-end 2016-17 prices).

Proposed approach to the water resources RCV allocation at PR19

Appendix A - Board statement

We, the board of United Utilities Water Limited (UUW, or the Company) are satisfied that:

- The approach taken to assess the options and develop a proposed unfocused allocation of the Water Regulatory Capital Value between Water Resources and Water network plus reflects the guidance provided by Ofwat.
- The accuracy of the data tables and supporting information, and the material assumptions and uncertainties, have been set out in the report and table commentaries included in the submission.

In making this statement we have considered the following key factors:

- The impact that the proposed allocation would have on charges for different services and customers;
- The impact that the proposed allocation would have on potential water resource markets and future water trading opportunities;
- The impacts that the proposed allocation could have upon the relative costs of water resources and other options to address supply demand deficits reviewed through the Water Resource Management Planning process;
- The consistency between the resultant charges and cost recovery and specifically the cost impact on bulk supplies and compliance with competition law;
- The likelihood of requiring a reallocation at PR24.

The statement is based upon the evidence provided by the Executive to the UUW Board, which set out the range of considerations and assumptions made when developing this submission, together with the supporting report provided by Deloitte. Deloitte prepared an independent report which has confirmed that

- The approach taken to assess the options and develop a proposed unfocused allocation of the Water Regulatory Capital Value between Water Resources and Water network plus reflects the guidance provided by Ofwat.
- The accuracy of the data tables and supporting information is sufficient to support the review and choice of option.
- The material assumptions and uncertainties that have been identified through this process, have been set out in the report and the table commentaries included in the submission.

This evidence and assurance has also been supported by work undertaken by UU Corporate Audit who confirmed that the framework for the assurance of this submission was robust and that the approach set out within this framework had been complied with.



Signed on behalf of the UUW Limited Board
Steve Mogford Chief Executive Officer

17 January 2018