NORTHUMBRIAN WATER LIMITED

2016 REVIEW OF THE NON-HOUSEHOLD RETAIL PRICE CONTROL

20 JULY 2016

Contents

1 PR16 SUBMISSION

1.1 INTRODUCTION

At PR14 the non-household retail price control was set for the 2015-20 time period, but was to be revisited after two years to give companies the opportunity to re-present their price control in light of any new information that came to light during this time period.

The scope of the 2016 review of the non-household retail price control (PR16) was set out by Ofwat in their method statement published on 19 May 2016. This document sets out Northumbrian Water Limited (NWL) revised price control proposals which follow our understanding of the guidance set out the May 2016 method statement.

We have significant concerns about the proposal to change the form of the price control for larger customers to a gross margin, and the introduction of a supplementary limit on price increases.

Our submission complies with the allocation of the 2.5% net margin between the customer groups and we have not modified our submission to meet the potential gross margin or supplementary limit approaches.

The scope of review at PR16 has been consistently and clearly defined as maintaining the level of allowed net margin for default tariffs at 2.5%, and these two proposed changes may change this. Any perception that the 2.5% net margin is being eroded risks undermining trust and confidence of customers and investors in the development of the competitive market for non-households.

No information has been provided in the May 2016 method statement about how the 'gross margin' approach for large premises will reconcile to the 2.5% net margin and there are indications that a standard 'gross margin' will be applied for all companies. This would mean not recognising individual companies allocations of risks to larger customers and could result in some companies being allowed a higher net margin and others a lower net margin than the 2.5%. This directly contradicts the stated scope of the review, and is against every principle set out Ofwat as part of PR14 and PR16.

If the 2.5% net margin would allow companies to increases prices by more than 1% then the imposition of a supplementary limit on price increases of 1% means that the price control forces companies to charge lower than the amount deemed appropriate by Ofwat "*for securing the efficient financing of capital employed in providing retail services and reasonably renumerating risk*"[1].

We note that the supplementary limit on price increases was not included in any communications prior to the May 2016 method statement, and it is unclear how the supplementary limits should be measured and whether the May 2016 method statement is the consultation on this issue or another will follow. It is also not prominently identified as a new constraint. This lack of clarity and timing indicates that the supplementary limits may have been included as an afterthought and the approach does not follow Ofwat's usual consultative process.

One or both of a standard gross margin or supplementary price limit approach may force companies to charge less than the 2.5% net margin, and therefore can be interpreted as a convoluted way to reduce the net margin without explicitly saying so. A number of parties have already challenged the

[1] Business retail price review 2016: Statement of method and data table requirements, Ofwat, May 2016, p12

2.5% net margin as being too low, and further pressure on the net margin increases the weight of these arguments.

Companies must try to comply with both competition law and regulatory requirements, especially as companies are legally required to comply with price controls through their operating licences. The price controls must at least provide a basis that allows the opportunity to be compliant with competition law, and we are concerned that these new constraints will force companies towards a non-compliant position.

It is our view that Ofwat should set Draft Determinations in September that are realistic, and we remind Ofwat of their legal obligations to promote competition. The proposed changes put more pressure on an already tight allowed net margin and as the default tariffs are the baseline for comparison for the development of competition, anything that forces a lower net margin that does not reflect the real risks faced by companies, will have a detrimental effect on the ability for new entrants to compete and a detrimental effect on the development of competition.

We would also like to draw Ofwat's attention to the fact that the economic climate and information available to Ofwat have substantially changed since PR14 and even since early 2016 when the consultation on the PR16 approach was open. The scope of PR16 did not reopen the allowed retail costs due to "limited new evidence". We feel that Ofwat must take account of new evidence that has become available since May 2016, especially information available from Water & Sewerage Supply Licences (WSSL) applications and the 2015-16 Regulatory Accounts which were published in 15 July 2016. In particular the following points:

- Assumptions made at PR14 were made based on the information and economic situation in place during 2014. Since this time there has been a significant change to the potential future economic landscape with the UK set to leave the European Union (EU) following the June 2016 referendum. The impact and risks to retail costs as result of the changed economic future of the UK merits review as part of PR16. We discuss this in section 1.6.2 under the heading of inflation.

- Undertakers are carrying out significant work to set up independent standalone non-household retail units, which are currently working towards obtaining WSSLs to be ready for market opening in April 2017. The significant amounts of work being carried out as part of the Market Entry Acceptance (MEA) process, and the business planning ready for the new market has produced significant levels of evidence about what the real level of costs of operating a separate retail unit at arm's length from the undertaker's wholesale business from 2017 now entail. This issue is discussed in section 1.6.3. We feel that evidence available to Ofwat as part of the MEA and licence application prices should be considered as part of PR16.

1.2 GOVERNANCE

The PR16 approach was approved by the NWL Board at their May 2016 meeting. Detailed decisions were approved by our Charges Steering Group (CSG) which is a formal Management Team working group with responsibility for strategy and policy for setting charges within NWL.

Charges Steering Group membership: Finance Director, Assets & Assurance Director, Customer Director, Financial Controller, Pricing Manager, Billing Manager

In preparation for the non-household retail market fully opening in April 2017, NWL has set up a separate non-household retail team who are currently in the process of applying for a retail licence and is going through the MEA process. This team has its own Managing Director and Board. The retail Board has also approved the PR16 approach and the retail Finance Director has been part of the CSG for PR16 purposes.

External assurance has been carried out on the retail cost and net margin allocations, with a number of challenges to the allocation methodology and calculations. While we did not ask for a formal peer review of the methodology as we started by using the same allocation methodology as used at PR14, the external assurance has also provided an informal peer review of the cost and net margin allocation process, and we have incorporated the comments made by the external assurers. The methodology used has therefore been slightly refined and these changes are noted in Appendix A.

1.3 CUSTOMER ENGAGEMENT

Once the retail cost and net margin allocations were reviewed, we felt that there was no material change warranting customer consultation. The main change is the move from the PR14 customer types to the PR16 customer types, which is a requirement and not a subject for consultation.

1.4 APPROACH TO THE NWL PR16 SUBMISSION

1.4.1 Purpose of the PR16 review

"*This review aims to ensure that the business retail price controls do not create undue barriers to entry or expansion, or restrict the ability of customers to secure deals with the retailer that best meet their needs*."[2]

"...we have decided that the basic form of control set out in our final methodology statement should be implemented for all companies, but with a two-year initial duration, and with a review carried out in 2016... Giving the companies the opportunity to review the cost and margin allocations between non-household customer types reflected in non-household retail controls and default tariffs before market opening may also help companies manage compliance with their duties and obligations, including competition law... However if, in 2016, companies consider that their allocation approaches are still robust, they may have the option not to update their allocations."[3]

Taking into account the intention of the PR16 review as set out at PR14 and the scope as set out in the May 2016 method statement, we have approached this review with three main objectives:

- Ensure the total retail cost and net margin for any submitted data match those allowed at PR14;
- Use the latest available information on retail costs and customers to inform our allocations between customer types; and
- Present the retail cost and net margin allocations in the customer types required by Ofwat as set out in the May 2016 method statement.

It is our understanding that if retail costs or net margins for default tariffs are set too low in any area then an efficient retailer will not be able to compete against the default prices and that this will generate a barrier to entry in the new non-household retail market. It would also have the potential for challenges to be raised under competition law for 'margin squeeze'.

[2] Business retail price review 2016: Statement of method and data table requirements, Ofwat, May 2016, p3
[3] Final price control determination notice: policy chapter A6 – non-household retail costs and revenues, Ofwat, December 2014, p26

In order to minimise this risk we felt that the latest available information about customers should be used for the PR16 submission and have therefore carried out a complete rerun of our PR14 analysis using up to date 2015-16 customer and cost information.

Our data submission, even using the same customer types as defined at PR14, is therefore different to PR14 because the characteristics of our customer base have changed, and because we have more information about the detail of non-household retail services from the work being carried out to prepare for market opening. The result of this new information means costs are distributed differently to that assumed at PR14 simply because things change over time.

We feel that this is the most effective approach for NWL to minimise risks of challenge under competition law, and given that the total figures must comply with the allowances set by Ofwat, this is the most we can do to ensure that our default tariffs are as reflective of reality as possible within the constraints set for us.

1.4.2 PR14 summary

The form of the PR14 price control fixed the amount of revenue companies could recover for retail activities from their non-household customers. The amount of revenue to be recovered was fixed as an average retail cost per customer plus a percentage amount of net margin. The allowed retail cost per customer and percentage net margin was required to be different for different groups of customers but the total across all customer types could not exceed the total allowed retail cost or the allowed 2.5% aggregate net margin, as calculated by the formula set out by Ofwat in the PR14 final determinations, which is shown below.

$$NHH\ retail\ price\ control\ revenue = \left[\frac{(\,retail\ cost + wholesale\ revenue\,)}{(1 - net\ margin)}\right] - wholesale\ revenue$$

Figure 1 – PR14 FD letter formula for calculating allowed retail revenue

Companies were allowed to choose their own customer types and therefore had to allocate the way the allowed retail cost and net margin should be recovered for each of the customer types according to the cost to serve for each group.

In effect PR14 set several mini-price controls, one for each of the customer types defined by NWL, each following the price control formula, and which across all the groups met the total allowed cost and net margin.

At PR14 NWL chose to split the non-household retail price control into 16 different groups (defined as “customer types” in the PR14 FD letter[4]), each of which mirrored a wholesale tariff. This was because:

- When applying the price control the format of charges that non-households see on their bills would not need to change;
- For NWL the wholesale tariffs broadly determine when there are significant retail cost changes between customers, for example, on one tariff customers may be billed once a year and on another 12 times a year. This means that the allocation of cost recovery is clear;
- When calculating the retail charges to apply to non-households the modelling is very clear and minimises the risks that may introduced by more complex approaches; and

[4] NWL Company Specific Final Determination letter, Ofwat, December 2014, page 8
http://www.ofwat.gov.uk/wp-content/uploads/2015/10/det_pr20141212letnes.pdf

- Importantly, it had the minimum impact on end customer bills as it did not force a change to the structure of customer bills, for example the addition of an extra line item, that would not have been meaningful to our customers.

1.4.3 Proposal for a supplementary limit on price increases of 1%

"to strengthen the incentives on companies to manage price disturbance we could introduce a supplementary restraint prohibiting increases in any retail default tariffs causing more than a one percentage point increase in final prices to customers in any year."[5]

In the May 2016 method statement, Ofwat stated that the above statement was not mentioned in the draft method statement and was still open for consultation, and that confirmation whether this option will be taken forward will be made in the September DD.

We feel that such a cap is unacceptable as it would have a direct impact on the effectiveness of competition and reduce the ability of new entrants to compete in the market. **We therefore feel that this option must not be taken forward.**

The May 2016 method statement clearly laid out the principle that the level of net margin (2.5% would not be reopened as part of PR16. Such a cap would be contradictory to this principle, by pushing companies to charge less than the 2.5% aggregate net margin.

In addition, there have been a number of challenges from different parties at PR14 and during the PR16 consultations to date that the 2.5% net margin deemed appropriate for the default tariffs, may not be sufficient in reality, and may actually not be available to earn due to the higher cost of standalone operation than has been allowed for PR14.

Capping increases in charges at anything below the figures shown in the PR16 price control analysis would increase the pressure on the net margin, and means that companies would effectively have to charge a lower margin to comply with the price control, compounded due to no inflation allowance. It is unrealistic to assume that companies can meet the additional efficiency challenge that would be imposed by capping price increases and any reduced revenues from capped price increases would have to be absorbed into the net margin.

Margins are already very tight and further constraints would further reduce the scope for new entrants to compete against the default tariffs. We consider that this would significantly impede development of the market and must be avoided.

1.5 PR16 DATA SUBMISSION AND ALLOCATIONS

1.5.1 Introduction

NWL has submitted Table R4A, using the new customer types as defined by Ofwat in the May 2016 method statement. A version 2 of Table R4A, showing the updated retail cost and net margin allocations against the PR14 NWL customer types, has also been submitted, for information and consideration by Ofwat. This version 2 clearly shows how the allocations between customer types have changed since PR14.

[5] Business retail price review 2016: Statement of method and data table requirements, Ofwat, May 2016, p21

Table R4A has allocated the elements of the non-household retail price control formula, shown in Figure 1. The retail cost and net margin that have been allocated aggregate back to the total values allowed in the PR14 FD, and specifically for retail costs, the allowed value set out in the "Non-household populated retail model"[6].

NWL has submitted eight new customer types, four for both water and sewerage. There are two bands for those premises using more than 5Ml/pa which are the groups specified by Ofwat. For the premises using less that 5 Ml/pa we have two groups, one for measured and one for unmeasured customers. The mapping of the NWL PR14 customer types to the new PR16 customer types can been seen in Figure 2 below.

PR16 customer type	PR14 Customer type
01 Unmeasured Water	01 Unmeas Water N (all) 02 Unmeas Water S (all)
02 Measured Water 0-5Ml/pa	03 Meas Water N std (some of) 07 Meas Water S std (some of) 15 Ind Water (some of)
03 Measured Water 5-50Ml/pa	03 Meas Water N std (some of) 07 Meas Water S std (some of) 04 Meas Water N f20 (all) 08 Meas Water S f20 (all) 15 Ind Water (some of)
04 Measured Water >50Ml/pa	05 Meas Water N fx (all) 06 Meas Water N f+ (all) 09 Meas Water S fx (all) 10 Meas Water S f+ (all) 15 Ind Water (some of)
05 Unmeasured Sewerage	11 Unmeas Sew (all)
06 Measured Sewerage 0-5Ml/pa	12 Meas Sew – std (some of) 14 Trade Effluent – std (some of) 16 Trade Effluent - Special Agreement (some of)
07 Measured Sewerage 5-50Ml/pa	12 Meas Sew – std (some of) 14 Trade Effluent – std (some of) 16 Trade Effluent - Special Agreement (some of)
08 Measured Sewerage >50Ml/pa	13 Meas Sew – LU (all) 14 Trade Effluent – std (some of) 16 Trade Effluent - Special Agreement (some of)

Figure 2 – Mapping of NWL PR14 customer types to proposed PR16 customer types

Both versions use the same retail cost and net margin allocations methodology used at PR14, as set out in the NWL methodology submitted to Ofwat on 27 June 2014. A few small improvements have been incorporated to this methodology, following challenge from our external reviewer.

A summary of our allocation approach and changes from the PR14 methodology can be found in Appendix A, under headings that follow the elements of the PR14 price control formula set out in Figure 1:

- Customer types
- Retail cost
- Net margin
- Number of premises
- Wholesale revenue

[6] http://www.ofwat.gov.uk/wp-content/uploads/2016/01/pap_tec201412nhhretailpopmodel.xlsx

1.5.2 PR16 data

Appendix B shows the comparison of retail cost and net margin allocation for PR14 and PR16 using the PR14 customer types. This analysis shows how the retail cost and net margin allocations have changed.

We note our PR16 submission shows gross margin calculations for the larger customer types that are different to the potential thresholds discussed by Ofwat in the May 2016 method statement. This is because they are the outcome of our allocations, we have not adjusted our analysis to make the gross margin meet the threshold proposed on page 30 of the May 2016 method statement.

The key points to note are:

- At PR16 retail costs allocations are more weighted toward water only customers in Essex & Suffolk (ESW) (customer types 07-10 in Figure 2) and trade effluent (customer type 14). This is a result of the slightly different methodology for allocating retail cost between water and sewerage. Care should be taken when comparing any ESW retail costs to Northumbrian Water (NW) costs, as the NW costs are separated between water and sewerage customer types, and so the difference illustrates the different costs to serve for single and dual service customers;
- Net margin allocations are slightly higher for larger customers than at PR14. This is due to the combination of the rebalancing of wholesale revenues between customer types and working capital requirements, as well as the small change to the allocation methodology for the residual return on risk element of the allocation; and
- Net margin allocations are higher for unmeasured customers (customer types 01, 02 and 11 in Figure 2). This is because during 2016/17 and 2017/18 these customers have been migrated from being charged on an rateable value (RV) basis for their wholesale charges to an assessed basis, which has resulted in lower wholesale charges for these customers, which has rebalanced the allocations for this group of customers.

1.5.3 Implications for customer prices of the PR16 data

We feel that the new allocations do not have a material impact on customer prices. However we cannot make clear statements on this subject until we see the DD and the actual form and level of the price control for all customers.

It is worth highlighting that there is a risk that the changes to the form of the price control may trigger a required change to the structure of tariffs charged to customers.

Boards normally approve changes to charges structures early in the year to ensure that there is enough time to design any required changes into IT systems and to design effective communications strategies for customers. The DD will be published in September 2016, and the form of the control will not be confirmed until this point, which will be too late in the day to implement any changes to tariff structures. It is also at a point in time when companies will be focusing on Shadow Operations and the successful implementation of the new non-household retail market. We would urge Ofwat to consider the risks for April 2017 of unexpected outcomes in the September 2016 DD.

1.6 FURTHER CONSIDERATIONS RELATING TO EFFECTIVE COMPETITION

1.6.1 Changing the form of price control ("gross margin")

The May 2016 method statement proposes to change the form of price control from "retail cost plus net margin" to "gross margin" for larger customers. We would like to note the following points for consideration:

- It is not clear how a "gross margin" control for some customer type reconciles with an aggregate 2.5% allowed net margin. The May 2016 method statement is clear that the 2.5% net margin allowance stands, and this would need to be clarified if a "gross margin" control is to be considered.

- Page 30 of the May 2016 method statement implies that if the 'gross margin' approach is followed, it would be set at the same value for all companies. This means that if companies' price control analysis shows their customer type has higher than the defined value, their charges will be capped. This would then push their net margin below the 2.5% allowed at PR14, whereas other companies may be allowed more than the aggregate 2.5% net margin. This would clearly be unfair and inconsistent with the principles that the aggregate net margin allowed would remain unchanged.

- There would be two different forms of control for different customers. This is confusing, inconsistent and comparisons cannot be made.

- 'Gross margin' makes retail revenue more dependent on wholesale revenues, and will flex more as wholesale revenue changes. It does not recognise the fixed costs of providing a retail service and may therefore affect the true reflection of costs in the default tariffs.

1.6.2 Inflation

At PR14 Ofwat made working assumptions that inflation would be in the range of 2.5-3.5%. However this amount was not allowed for in the allowed retail costs and it was stated that companies had to absorb cost inflation as an efficiency challenge.

While inflation up to 2015/16 has been lower than expected, which will have helped keep retail costs closer to the PR14 allowed levels, the vote by the UK public to leave the European Union has changed the economic climate for the UK, and is a new piece of information that needs to be taken into consideration for PR16. Some major financial players have started forecasting that inflation may increase to as much as 5% over the next few years, for example HSBC and the International Monetary Fund have both stated that the UK should expect rising inflation as the value of sterling falls.

Such a material change in the risk profile for inflation would have a significant impact on the ability of companies to meet such an efficiency challenge, especially given the concerns of the levels of allowed costs in PR14 (see section 1.6.3). The consequence of higher inflation would mean that companies have to absorb even higher costs in their default tariffs and effectively into their net margin. This would lead to companies charging a lower net margin and reducing the scope for new entrants to compete against the default tariffs, leading to the potential stifling of competition.

The following table illustrates the impact of inflation on the net margin, if companies are not realistically able to fully meet the efficiency challenge imposed by the assumption of no inflation included in the retail costs allowed in the price review. We have made a conservative assumption in this table that retail costs increase by 50% of prevailing inflation.

	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Allowed Retail Cost (£m)	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Wholesale Revenue (£m)	200.0	200.0	200.0	200.0	200.0	200.0	200.0
Allowed Net margin (%)	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Allowed retail revenue (£m) (calculated from PR14 formula)	11.3	11.3	11.3	11.3	11.3	11.3	11.3
£ net margin calculated from PR14 formula (£m)	5.3	5.3	5.3	5.3	5.3	5.3	5.3
PR14 assumed annual inflation (%)		2.9%	2.7%	2.8%	3.4%	3.5%	3.3%
Retail costs if they increase by half the inflation value	6.0	6.1	6.2	6.3	6.4	6.5	6.6
PR14 effective efficiency challenge (£)			0.2	0.3	0.4	0.5	0.6
Effective £ net margin (assuming total retail revenue meets half the effective efficiency challenge)	5.3	5.2	5.1	5.0	4.9	4.8	4.7
Effective % net margin	2.5%	2.5%	2.4%	2.4%	2.3%	2.3%	2.2%
Eroded net margin (%)	0.0%	0.0%	-0.1%	-0.1%	-0.2%	-0.2%	-0.3%

Figure 3 – Illustration of the potential impact inflation on retail costs and net margin (using a notional retailer)

We would like to note that the cumulative effect of both inflation (shown in Figure 3) and higher real retail costs (shown in Figure 4) clearly increase the pressure on net margin.

1.6.3 Real retail costs versus allowed retail costs

Where a retailer has total costs for default customers that are higher than those allowed in the non-household retail price control, these will have to be absorbed into the net margin, meaning that in reality that retailer is charging a lower aggregate net margin than the 2.5% deemed to be appropriate for facilitating competition in the new market.

The information gleaned through the MEA and licence application processes provides valuable evidence to consider when setting PR16 prices.

We recognise Ofwat's stated position that the allocation of costs between wholesale and retail will not be reopened, but any evidence now available about forecast retail costs for 2017-18 onwards, suitably adjusted to only reflect the costs required for default customers, should be taken into consideration in the PR16 review, rather than assuming that the historic allocations reflect the changes required to implement the non-household retail market and assuming that any variations are due to inefficiency.

As part of market opening, undertakers have been required to set up non-household retail businesses that operate standalone and at arm's length from the wholesale business. Different undertakers have chosen different approaches to setting up these businesses, with different impacts on the required operating costs of the business.

However, at PR14 the costs reported to Ofwat in the Regulatory Accounts at that time were allocated out of existing business costs. They were also historic costs, based on a situation where most companies had not fully separated out their non-household retail business.

All undertakers and their non-household retail business are currently going through Market Readiness assessments and MEA processes to apply for retail licences and to assure Ofwat and Defra that the market will be ready for opening in April 2017. As part of the licence application, retail business have been required to submit their business plans for the first three years post market opening, which will contain the forecast costs of running the separate non-household retail business.

While these business plans include assumptions on changes in the number of customers served in and out of the existing incumbent's area and costs for acquisition and retention, which are not relevant for default tariffs, this business plan information is important evidence about the future expected cost of operating a separate company, rather than assumptions based on past allocations. This evidence is a valuable as part of the PR16 review to ensure that the default tariffs are set at levels that reflect a realistic cost to serve.

Two further important points to consider about allocated versus real costs are:

- Economies of scale; and
- PR14 and Regulatory Accounts allocation rules and appropriateness given current business plan projections.

These two points are discussed below.

Economies of scale

Costs for certain activities will be cheaper for a small team in a large company, than for a small team operating in a separate company. The main areas which may be impacted by a loss of economy of scale are:

- Management, as duplicate management structures need to be set up
- Buildings
- IT infrastructure

For example, to comply with the level playing field requirements most companies are likely to move their retail teams to a separate building. The allocation of cost from the current undertaker asset base is likely to underestimate the costs of occupying and maintaining a separate building. For example, say a retail team will be 50 people, the space they occupy in an undertakers main office will be quite small. However move them to a separate building where things such as separate IT infrastructure and running costs, security arrangements, insurance and health & safety and fire safety requirements must be fulfilled, the costs incurred will increase.

Evidence of potential cost impact of operating a separate retail unit is available in the 2015-16 Regulatory Accounts from companies who have already moved to separate buildings and have separate IT infrastructures, and a comparative analysis of retail costs for these companies compared to companies who have not moved to separate buildings for 2015-16 could be undertaken.

While page 10 of the May 2016 method states that raising charges above the level of efficient entry is inappropriate, there is a balance to be made between raising charges for customers and the legal obligation to promote competition. We feel that some reassessment of the efficient level of entry is appropriate to incorporate the latest available retail cost information.

PR14 and Regulatory Accounts allocation rules

A key requirement of the Regulatory Accounts Guidelines (RAGs)[7], that provide the baseline retail non-household costs, is principle use as defined below:

Principal use: Where possible, capital expenditures and associated depreciation should be directly attributed to one of the four services for which price limits have been set for 2015-20; that is to wholesale water, wholesale wastewater, household retail or non-household retail. Where this is not possible as the asset is used by more than one service, it should be reported in the service of principal use with recharges made to the others services that use the asset reflecting the proportion of the asset used by the other services.[8]

Following this RAG means that the depreciation costs or recharges relating to billing systems may not be allocated to non-household retail as household use is much larger than for non-households. It may also apply for other shared resources, such as shared buildings or general IT infrastructure. An allocation made correctly on this basis as part of PR14 or in accordance with RAG2 may not show a fair reflection of the full costs or running a retail business at arm's length from the undertaker, and therefore lead to an under-assessment of the amount of retail cost to be allowed in the price control.

An example may be that, historically, systems will have been integrated and most likely allocated to the wholesale or household retail price controls for cost as both these activities are much larger than non-household retail. Moving forward, in a world where a separate, arm's length non-household retail team is required to comply with level playing field requirements, this is a logical point to review the sharing of systems, and especially with the new requirements of the market, in many cases new systems will be an appropriate choice. These choices may have also changed since PR14, or more detailed costing information may have become available. If the separate IT infrastructure was assessed in the future, using the PR14 cost allocation rules, it would be allocated to the non-household retail price control. It is likely that if the retail cost assessment made at PR14 was reviewed in the light of all this data, different conclusions could be drawn.

Such a potential underestimate of costs increases the pressure on net margins.

[7] RAG 2.05 – Guideline for classification of costs across the price controls, Ofwat, October 2015
[8] See 5, p5

Illustration of the potential impact of low retail costs being allowed in PR16

The table below shows how a low allowed retail cost in the price control, would have to be absorbed by the retail business into their net margin. This would result in default tariffs being lower than the allowed 2.5% net margin deemed appropriate to allow effective competition.

	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Allowed retail cost (£m)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Wholesale revenue (£m)	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0
Allowed net margin (%)	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Allowed retail revenue (£m) (calculated from PR14 formula)	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3
£ net margin calculated from PR14 formula (£m)	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
True retail costs (£m)	6.0	6.0	6.1	6.1	6.5	7.0	6.5	6.2
Effective net margin (assuming total retail revenue does not change) (£m)	5.3	5.3	5.2	5.2	4.8	4.3	4.8	5.1
Effective net margin (%)	2.50%	2.50%	2.45%	2.45%	2.26%	2.03%	2.26%	2.41%
Eroded net margin (%)	0.00%	0.00%	-0.05%	-0.05%	-0.24%	-0.47%	-0.24%	-0.09%

Figure 4 – Illustration of the impact of low allowed retail costs (based on a notional retailer)

Appendix A Allocation Methodology

This section sets out the detail to our approach to completing the data required for the PR16 data submission for Table R4A.

Customer types

As part of the NWL submission a retail cost and net margin allocation has been carried out using the customer types defined by Ofwat on p27 of the May 2016 method statement. The May 2016 method statement states that companies:

- may choose their own customer types for premises that use less than 5Ml/pa; and
- should use the customers groups defined by Ofwat for premises that used more than 5Ml/pa.

The assumptions NWL have made in defining customer types are:

- For customers in the 0-5Ml/pa volume range, two customer types have been defined, one for measured and one for unmeasured customers.
- There are separate customer types for water and sewerage, which means that if a premises has both water and sewerage services they will be counted twice, once in a water category and once in a sewerage category. In contrast a single service premises will only be counted once.
- A single set of customer types covering both the NW and ESW regions have been defined. This is to maintain the Ofwat objective of standardised customer types nationally. It is also appropriate because the allocations do not show a material difference in retail cost or net margin between the two regions.
- Premises have been allocated to a customer type based on either their water or sewerage volume usage:
  - Water volume has been calculated as potable plus non-potable volume;
  - Sewerage volume has been calculated as foul sewerage plus trade effluent "R" volume;
  - Premises may therefore be in a different band for water and sewerage. For example a premises using 10,000 cubic metres per year may have a 75% non-return to sewer allowance and so only discharge 2,500 cubic metres. They would therefore appear in the 5-50Ml/pa group for water and the 0-5Ml/pa for sewerage.
- Our PR14 customer type 16 (trade effluent special agreements) is absorbed into the sewerage categories, and PR14 customer type 15 (industrial water) is absorbed into the water category.

Retail cost allocation

The PR14 FD allowed retail cost, as taken from the non-household retail model spreadsheet[9], has been allocated between the customer types. This means there is no total change in retail costs in the PR16 analysis, other than the small amount caused by rounding.

Retail costs have been allocated using the NWL PR14 methodology submitted to Ofwat on 27 June 2014, with the following exceptions:

- Allocations between water and sewerage have been changed. At PR14 these were allocated using a weighting of the cost driver for the average number of services in that customer type. For PR16 a cost for each retail driver has been determined per premises, and then

[9] http://www.ofwat.gov.uk/wp-content/uploads/2016/01/pap_tec201412nhhretailpopmodel.xlsx

allocated between water and sewerage. This has resulted in a different and appropriate allocation between water and sewerage costs, which is visible in version 2 of table R4A.
- "Other" retail costs have been allocated on the proportion of retail costs for that customer type (i.e. the total of billing, meter reading, contact, debt and depreciation) rather than an equal amount per premises.

The non-household retail costs reported in the 2015-16 Regulatory Accounts Table 2C are different to the PR14 allowed retail costs. The Regulatory Accounts Table 2C data has been used as the baseline for the retail cost allocation and therefore drives the proportion of costs allocated under each of the retail cost drivers.

We note that the reported retail cost in the 2015-16 Regulatory Accounts is higher than that allowed at PR14 and discuss this further in the section 1.6.3.

Net margin allocation

Net margin has been allocated across customer types using the NWL PR14 methodology submitted to Ofwat on 27 June 2014, with the following exception:
- The residual return on risk element of net margin has been allocated on the proportion of wholesale plus retail cost for each customer type rather than just retail cost.

Property numbers

The number of properties in each customer type has been forecast from the 2015-16 baseline position using the same methodology as used at PR14.

At PR14 the latest available information was the 2013-14 property numbers. The difference between the PR14 and PR16 forecast numbers of properties for 2016-20 is due to actual changes in the property database since 2013-14, which is expected. These changes include such this as splits and mergers, less or more new properties being connected than forecast, data cleansing for market opening, customers being of different tariffs than forecast, and properties that are not on default tariffs.

Wholesale revenue forecasts

Table R4A requires a wholesale revenue for each customer type in nominal terms. NWL completed this data using current NWL tariff model forecasts, which are consistent with the approach used for forecasting when setting charges each year. The 2015-16 reported non-household wholesale revenue as well as the forecasts for 2016-20 are lower than those submitted in June 2014 for PR14 current non-household wholesale revenue forecasts for the following reasons:
- Closure and significant demand reduction from some of the largest industrial customers;
- Different levels of wholesale non-household prices than forecast at PR14. This reflects different wholesale revenue allocation and rebalancing, one of which is as a result of migrating unmeasured non-household charges to an assessed basis;
- Lower wholesale K factors allowed by Ofwat at PR14 FD than included in our original PR14 Business Plan submissions;
- Different overall demand from non-household customers; and
- Wholesale revenues for properties that are not on the default tariffs (i.e. have chosen a different retailer) have been excluded from the PR16 calculations.

It has been two years since the PR14 forecasts for the 2015-20 period were carried out, and since this time the above changes to customer characteristics has, and as would be expected, resulted in a different distribution of wholesale revenue across the customer types. As the calculation of allowed revenue (see Figure 1) uses wholesale revenue to calculate net margin, the new wholesale revenue forecasts have contributed to a rebalancing of the net margin between customer types.

We have submitted our PR16 data using wholesale revenue forecasts updated in July 2016, to reflect the latest available information.

Appendix B Non-household price control information – average cost per premises and net margin to be submitted as the price controls to Ofwat.

		Information fixed in Price Control (% Net Margin is the same for each year, and an different average retail cost per premises is set for each year as retail costs change each year)				% Gross margin (for information)
Customer type	Number of premises	2017-18	2018-19	2019-20	Net margin	
01 Unmeasured Water	7,988	16.23	16.22	16.20	6.7%	18.9%
02 Measured Water 0-5Ml/pa	83,475	26.47	26.44	26.42	4.0%	9.9%
03 Measured Water 5-50Ml/pa	1,506	237.28	237.08	236.88	1.5%	5.5%
04 Measured Water 50+Ml/pa	134	682.57	682.12	681.67	1.4%	2.1%
05 Unmeasured Sew	10,508	17.17	17.16	17.15	4.4%	6.0%
06 Measured Sew 0-5Ml/pa	42,269	28.18	28.15	28.13	2.6%	4.4%
07 Measured Sew 5-50Ml/pa	878	169.57	169.43	169.29	1.4%	5.1%
08 Measured Sew 50+Ml/pa	1,343	465.15	464.82	464.49	1.7%	2.6%
Total	148,101				2.5%	5.4%

Appendix C Non-household price control information version 2 – summary of changes to retail cost and net margin allocation between PR14 and PR16

Showing the four elements used in the PR14 FD allowed revenue formula and how they have moved for 2017-18 (which will be similar for the other years).

	As set in the PR14 FD letter				PR16 calculated figures				Change (PR16 minus PR14)			
Customer type	**2017-18 Number of premises**	**2017-18 Average Cost per premises (£)**	**Net Margin (%)**	**2017-18 Forecast Wholesale Revenue (£m)**	**2017-18 Number of premises**	**2017-18 Average Cost per premises (£)**	**Net Margin (%)**	**2017-18 Forecast Wholesale Revenue (£m)**	**2017-18 Number of premises**	**2017-18 Average Cost per premises (£)**	**Net Margin (%)**	**2017-18 Forecast Wholesale Revenue (£m)**
01 Unmeas Water N	5,761	18.62	6.0%	1.849	6,121	14.95	7.2%	1.119	360	-3.67	1.2%	-0.730
02 Unmeas Water S	1,407	25.37	3.7%	0.905	1,608	24.22	4.9%	0.497	201	-1.15	1.2%	-0.408
03 Meas Water N std	52,763	31.37	3.9%	36.855	51,309	27.77	3.5%	29.644	-1,454	-3.60	-0.4%	-7.211
04 Meas Water N f20	78	1,019.14	1.8%	2.551	115	480.45	1.4%	3.339	37	-538.69	-0.4%	0.788
05 Meas Water N fx	57	2,465.76	1.5%	5.625	45	1,030.12	1.4%	4.846	-12	-1,435.64	-0.1%	-0.779
06 Meas Water N f+	26	2,496.44	0.8%	13.267	25	1,346.77	1.4%	10.002	-1	-1,149.67	0.6%	-3.265
07 Meas Water S std	36,242	24.09	3.3%	27.558	34,058	37.85	3.2%	23.220	-2,184	13.76	-0.1%	-4.338
08 Meas Water S f20	45	658.93	1.1%	2.205	65	648.98	1.4%	2.743	20	-9.95	0.3%	0.538
09 Meas Water S fx	36	2,461.88	1.3%	5.001	28	1,940.87	1.4%	3.592	-8	-521.01	0.1%	-1.409
10 Meas Water S f+	11	2,478.54	0.8%	4.123	8	2,691.98	1.4%	3.289	-3	213.44	0.6%	-0.835
11 Unmeas Sew	9,372	21.91	4.6%	4.367	11,302	17.80	4.6%	3.958	1,930	-4.11	-0.1%	-0.409
12 Meas Sew - std	46,241	30.56	2.3%	63.136	45,025	33.76	2.3%	59.514	-1,216	3.20	0.0%	-3.622
13 Meas Sew - LU	27	2,380.62	1.0%	6.310	27	1,000.82	1.4%	4.135	0	-1,379.80	0.4%	-2.175
14 Trade Effluent - std	420	240.17	1.4%	6.347	376	174.08	1.5%	7.109	-44	-66.09	0.1%	0.762
15 Ind Water	12	2,664.84	0.8%	8.037	12	1,406.54	1.4%	6.233	0	-1,258.30	0.6%	-1.804
16 Trade Effluent - Special Agreement	6	2,573.05	0.7%	5.855	5	1,056.84	1.4%	2.487	-1	-1,516.21	0.7%	-3.368
Total	152,504		2.5%	193.988	150,129		2.5%	165.724	-2,375		0.0%	-28.264

Notes:

- The number of properties shown in Appendix B is different to Appendix A because some properties are counted under 4 customer types on Appendix B, but can only have two customer types on Appendix A.
- The 17-18 average retail cost per premises is in outturn (although there was no allowance for inflation from 2012-13)

Appendix D PR16 data table commentary

The following points should be taken into account when analysing the NWL PR16 Table R4A information;

- Data has only been changed for the years 2017-18, 2018-19 and 2019-20. This means there is a step change in data between 2016-17 and 2017-18 as the information rolls over from forecasts made at PR14 to forecasts made for PR16.
- The numbers of customers using the PR14 customer types are different to those on the PR16 customer types because potable and non-potable are aggregated in the new customer types, as are sewerage, trade effluent and special agreements. This means properties are counted slightly differently. This is also in addition to underlying movements in property numbers.