

SEVERN

TRENT

## Business retail price review 2016

### Severn Trent Water

*20 July 2016*

# 1. Executive Summary

*We welcome the opportunity to simplify our non-household retail controls.*

In our consultation response, we made clear that we were strong supporters of Ofwat’s proposals for simplification. The new three band approach for each service represents a sensible and pragmatic solution with tighter controls around pricing for the smaller customers who are most in need of protection.

*Uniform gross margin “back-stop” for larger customers*

We support Ofwat’s approach to setting a back-stop level of protection for large customers. The largest customers, which account for 1.5% of the customer base, are more likely to be aware of their options in the new market and have greater choice of supplier. We expect this will result in large customers switching to non-regulated rates shortly after market opening.

Given that the competition for these customers will be strong, we think it is important that rates are set at a level that does not squeeze margins for any company. From our revised allocation work we would be comfortably within the indicative gross margins of 3% and 5% outlined in Ofwat’s final statement of method.

In the table below we have set out our proposed gross and net margins. The most notable change since our PR14 submission is that we have improved our allocations which has resulted in *reduced* charges for the smallest customers and higher charges for those in the upper bands.

*Proposed gross and net margins – 3 year average*

Proposed margins	Gross	Net
<b>Water</b>		
Unmeasured and 0-5 MI/a	11.7%	3.8%
5-50 MI/a	4.6%	1.7%
50+ MI/a	2.9%	1.1%
Overall	8.2%	2.7%
<b>Waste</b>		
Unmeasured and 0-5 MI/a	7.7%	2.8%
5-50 MI/a	5.0%	1.8%
50+ MI/a	2.6%	1.0%
Overall	6.3%	2.3%
<b>Overall</b>		
Unmeasured and 0-5 MI/a	9.3%	3.2%
5-50 MI/a	4.8%	1.7%
50+ MI/a	2.7%	1.1%
Overall	7.1%	2.5%

*Impact of uniform controls and reallocation between bands*

We agree with Ofwat that there should not be a reduction in the revenues of the 0-5 MI/a band due to the adoption of uniform margins for the upper bands. This is important because whilst margins might theoretically increase for large customers, in practice we expect competitive pressures to drive this downwards (and so the margin for large customers is unlikely to be realised).

### *Changes in allocation since PR14*

The main reason for the increase in costs for the upper bands is a recognition that additional services provided to a select number of customers - such as Key Account Managers – need to be allocated more closely to the customers who receive these benefits.

Our aim is to ensure that we have retail controls that enable us to comply with our legal and regulatory obligations, particularly under Competition Law. To that end, we want our retail controls to be the best possible reflection of our retail costs. Broader bands are an important tool, which should allow companies flexibility to adjust retail tariffs from year to year in response to changes in cost.

The impact of these changes is modest in the context of overall bills. Our Water Forum was comfortable with the changes proposed for the larger customers and pleased by the modest reductions for the smallest band.

### **Contacts**

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## 2. Assurance Statement

In approving the PR16 business retail price review submission, the Board has considered:

- papers outlining the Company's procedures for the production and assurance of the PR16 business retail submission, and
- with respect to the production of the non-household retail tariffs the Board has specifically considered the following:
  - The governance framework detailing the assurance approach adopted and the outcome of the independent review of the framework undertaken by Internal Audit.
  - The clearly defined accountabilities and responsibilities including formal sign off by approved data owners.
  - The scope of the assurance work undertaken by our independent Financial and Technical assurance partners, and their findings as detailed in the final audit reports.
  - Confirmation of the degree of assurance undertaken on the source information / data used in the non-household tariff calculations.
  - The dedicated Access Pricing model designed to deliver separate non-household retail tariffs.
  - Confirmation that there are no material issues outstanding arising from the assurance work.
  - Confirmation that the non-household retail tariffs have been calculated in a manner compliant with guidance as issued by Ofwat.
  - Confirmation that the non-household retail tariffs have been prepared in a manner compliant with Licence Condition E and R and with competition law.
  - The content and tone of the Board Statement.

Having considered that above the Board confirms that in their opinion:

- The PR16 business retail price review submission has been compiled in a planned and professional manner with appropriate accountabilities and responsibilities and is consistent with the overriding system of governance and control of the company.
- A subcommittee comprising of Executive and non-Executive Board members have been fully engaged in the process and have approved the final submission.
- The Company has sufficient processes and internal systems of control to ensure that the data and information contained in the PR16 business retail submission is sufficiently accurate to meet its obligations.
- Our proposals have been reasonably informed by customer engagement, and research, and we have consulted with our CCG, the Water Forum in a timely and effective manner.

Accordingly, we believe that the PR16 business retail price review submission complies with our statutory and regulatory obligations in all material respects and is consistent with Ofwat's published guidance on charging principles.

Signed by, and on behalf of the Board:



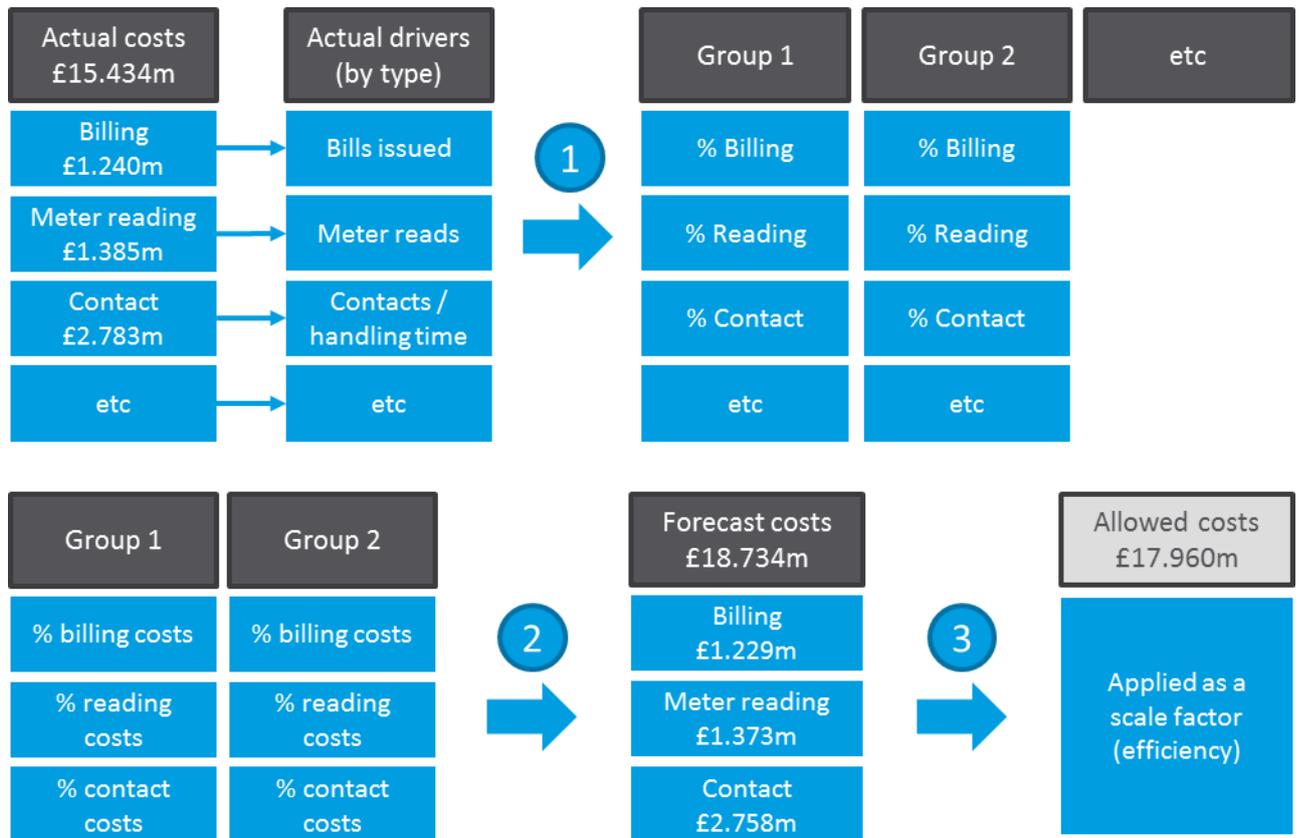
Liv Garfield  
Chief Executive  
Severn Trent Water Ltd  
07 July 2016

### 3. Approach to cost allocation

#### 3.1 Overview of approach

To reallocate the cost allowances from PR14, we have used a three stage approach which takes account of our current cost base and the way we expect this to change in future.

1. Allocate historical costs using drivers for each type of activity
2. Apply proportion of costs for each activity to our forecast
3. Allocate PR14 cost allowance between customer groups



#### 1. Allocate historical costs using drivers for each type of activity

Our starting point has been to look at the costs from the table 2c of the Annual Performance Report. Compared to the base figures from 2013/14 which formed the basis for forecast cost figures at PR14, there have been a number of improvements in the way that we approach cost allocation (These changes are described further in section 3.2):

- The allocation between controls has moved, which is partly driven by changes in Ofwat guidance
- Our allocation between retail cost categories is different. For example, in 13/14 customer services (billing, payment handling and contact costs) was only 15% of operating expenditure; in 15/16 this was 25%.

Of these two factors, the latter is more important in terms of the outcome for PR16. The overall cost envelope is fixed; there is no reallocation between controls. However, the cost attributed to each activity does matter, because it has a different impact on each type of customer.

The drivers we have used to allocate retail costs are broadly the same as we used at PR14. However, we have looked more closely at the additional services that are typically provided to larger customers and allocated these separately. We describe this further in section 3.3.

### 2. Apply proportion of costs for each activity to our forecast

Using cost drivers, we derive a proportion of each activity that should be allocated to each customer group. This is applied to our internal cost forecast, which is split by activity.

In general, the expected mix of costs going forwards is not radically different to the way in which it is recorded now – we are not anticipating a further change in allocations that would impact on this split. The one exception is depreciation costs. During 2015-16, non-household was not the principal user for any of the assets that it uses and therefore the depreciation on these appears as a recharge within the accounts. Going forward, our retail business will own its own assets and there are specific investments in new premises and systems. The forecast depreciation charge reflects this investment.

### 3. Allocate PR14 cost allowance between customer groups

The overall cost allowance from PR14 has been included without adjustment. This has been allocated between customer groups based on our expected mix – in effect the PR14 allowance is treated as a scale factor or efficiency.

## 3.2 Overall retail costs

*Differences in the mix of non-household retail costs since PR14 arise for a number of reasons, including organisational changes, efficiency and the method of allocation*

Although the allowed costs for 2015/16 in the Final Determination were not split down into retail activities, it is possible to make comparisons by apportioning FD costs in line with our Business Plan.

Activity	Variance (-ve = favourable) £m	Explanation
Billing total	-1.981	Increased efficiency in billing activities
Payment handling	-0.066	Better recording of payment by customer type – payment events now recorded as either household or non-household.
Non Network Customer Enquiries and Complaints	0.283	Change in organisational structure.
Network Customer Enquiries and Complaints	0.270	Change in organisational structure - network enquiries and complaints are now recorded directly in Retail rather than being allocated from Wholesale.
Debt Management	0.265	In 2015/16 debt management activities for Household and Non-household were split into separate teams. Previously these costs had been allocated based on the net value of debtors.

Activity	Variance (-ve = favourable) £m	Explanation
Doubtful Debts	-0.977	Better collection performance on amounts billed in the year and better management of aged debtor balances.
Meter reading	0.169	Meter reading costs now derive from a dedicated team and hence no allocation is required. Previously, costs were based on an allocation from a larger team. The allocation between Household and Non-household has changed to allocate costs based on the average time taken for meter reads whereas the FD allocation was based on the number of reads
Customer Side Leaks	-0.368	This difference is the result of a change in company policy in June 2015. The company no longer repairs customer side leaks without charge.
Other Direct Costs	0.638	This is due to one-off business transformation costs
Retail - Direct	1.978	The retail Non-household share of General and Support (G&S) costs has increased due to a change in allocation method. At PR14 we allocated G&S between retail household and non-household based on customer numbers. For 2015/16 actuals, the updated guidance in RAG 2.05 has been applied, which indicates that allocation based on Full Time Equivalent employees (FTEs) is preferable to customer numbers for G&S costs.
Depreciation	-0.211	As retail household is deemed to be the principal user for all retail assets there are no principal user assets in the non-household business. This results in a favourable variance to FD which includes depreciation on legacy and new assets (including use of asset recharges). However, for the purpose of allocating costs between customer groups, we have treated the recharges in the same way as we would have treated the depreciation. For simplicity, we have also continued to call this "depreciation" in our calculations (see 3.3)
Other	0.032	Made of small variances on meter maintenance, disconnections and demand side water efficiencies
<b>TOTAL</b>	<b>0.033</b>	

### 3.3 Allocation across customer groups

*Our approach breaks down cost and driver information to a more granular level than the standard bands in Ofwat's final method*

In our consultation response, we made clear that we were strong supporters of the Ofwat proposals for simplification at this review. After PR14, we had 18 binding controls on non-household retail revenue of around £25m compared to two wholesale controls for revenue of c£1,400m – to us, this did not seem to be targeted or proportionate. The new three band approach for each service represents a dramatic reduction in

complexity – particularly for the waste water service. We believe that the changes Ofwat has made are sensible and pragmatic.

At an early stage in our preparations for PR16 we considered that we would try to simplify our approach from PR14 if possible. However, we had to prepare for all eventualities, including:

- Continuation of our existing structure (18 controls)
- Alignment of water and waste bandings (in our existing tariff structure, there is a threshold at 10 MI/a which does not exist for waste)
- A lower band set at a 1 MI/a threshold (per Ofwat original proposals)
- Lower band set at 5 MI/a (per our consultation response and Ofwat final approach)

We have therefore allocated costs across a more granular split of the customer base than is now required, but we think this will have continuing value in terms of ensuring that our actual retail charges are differentiated properly. There will continue to be a range of retail charges that customers actually pay within any Average Revenue Control (ARC).

Granular Bands	Unmeasured	0-1 ML/a	1-5 MI/a	5-10 MI/a	10-25 MI/a	25-50 MI/a	50-250 MI/a	250+ MI/a
<b>STW Charges - Water</b>	Unmeasured	0-10 MI/a			10-50 MI/a		50+ MI/a	
<b>STW Charges - Waste</b>	Unmeasured	0-50 MI/a					50-250 MI/a	250+ MI/a
<b>Standard (Water and Waste)</b>		0-5 MI/a		5-50 MI/a			50+ MI/a	

*Allocation between water and waste water services follows the same approach as PR14*

In terms of the split between services, we have continued to allocate based on the constituent elements of the waste water (foul sewerage, surface water and trade effluent); they are then aggregated to form a view of the total costs for waste water in a given band. We consider surface water as part of sewerage service and split costs between these two components. However, for allocation purposes trade effluent is generally considered as a service in its own right – it is generally billed separately due to its complexity, even if the customer also takes other services. A customer receiving all services would therefore be weighted as follows:

Services	Weighting for cost allocation	Denominator in Price Controls	Standard controls
<b>Water</b>	1.0	1.0	<b>Water</b>
<b>Foul sewerage</b>	0.5	1.0	<b>Waste Water</b>
<b>Surface water</b>	0.5		
<b>Trade effluent</b>	1.0		

We think this is a better reflection of the cost or benefit associated with providing retail service. For example, there are is meter reading cost or benefit associated with a surface water customer unless they also have foul sewerage; however each surface-only customer counts towards the denominator in the waste water control.

*Most retail activities have been split between several drivers to better reflect the cost to serve each customer group*

Typically, the bulk of costs has been allocated according to a primary driver such as the share of total bills issued. However, costs associated with additional services have been picked out and allocated in line with the customers that receive them. This has resulted in an increase in the costs allocated to larger customers. While our Key Account Managers do look after some customers that have multiple sites – some of which are small – their activity is more weighted to the upper end of the scale.

#### *Billing costs*

<b>Cost</b>	<b>Driver (between consumption bands)</b>	<b>Between services</b>	<b>Costs £000</b>
Business Direct	Customers under specialised management	Share of bills	295
Team	Customers under consolidated management	Share of bills	295
All other costs	Share of Total Bills	Same	650
	<b>Total billing costs</b>		<b>1,240</b>

Although billing costs are fixed or semi-variable (such as systems and headcount), for the purpose of allocating this cost between customers the number of bills issued is the best driver. Severn Trent typically bills small customers twice per year and customers using more than 10 MI/a on a monthly basis. In terms of the Ofwat standard bands, this means that some of our bi-annual customers will fall on each side of the 5 MI/a boundary.

As discussed, some customers require specialised services because they have more complex charges (such as those on standby tariffs) or receive consolidated bills. These costs are allocated separately to those customers.

#### *Meter reading*

<b>Cost</b>	<b>Driver (between consumption bands)</b>	<b>Between services</b>	<b>Costs £000</b>
All reading costs	Number of meter reads	Same	1,385

This is allocated using a single driver – the number of meter reads. To bill them more frequently, we also read larger customers’ meters more often, which weights cost slightly towards the upper end of the range. Ideally we would use the same driver as we use to split these costs between household and non-household. This takes account of the number of reads and the average time required; non-household meters are more widely dispersed, requiring additional travelling time. We do not currently collect the information necessary to differentiate reading time by consumption band. Commercial developments may include a mixture of large and small customers side by side, so it is difficult to say whether the use of this driver would make a material difference to the allocation of reading costs.

#### *Payment handling*

<b>Cost</b>	<b>Driver (between consumption bands)</b>	<b>Between services</b>	<b>Costs £000</b>
All payment handling costs	Share of total payments	Same	235

We allocate these costs based on the number of payments received. For customer groups where payments are received more frequently, costs are higher.

### Contact costs (calls and correspondence)

Cost	Driver (between consumption bands)	Between services	Costs £000
Network calls	Share of customers	Share of network calls	639
NST first time visits	Share of customers	Water only	140
Key Account Managers	Effort-weighted share of customers	Share of other contact costs	1,711
All other costs	Share of customers	Same	293
	Total contact costs		2,783

Contact costs are heavily weighted towards the water service. General contact costs (relating to billing etc) are the exception and have been allocated based on the number of customers. For network calls, we split between water and waste based on the number and duration of calls received – tracked over a number of years - which produces a weighting of nearly 69% to water. First time visits by Network Service Technicians are allocated wholly to water.

For PR16, we have split out the cost of additional services and allocated these according to the number of sites covered by Key Account Managers in each category. KAM sites are spread across all consumption bands because some of these customers have multiple sites, but this is modified by an estimate of the effort – i.e. Account Managers will spend more time dealing with concerns relating to the larger sites.

### Debt management

Cost	Driver (between consumption bands)	Between services	Costs £000
Credit Management Team	Share of customers <10 Ml/a	Same	189
Business Direct Team	Share of income > 10 Ml/a	Same	660
	Customers under specialised management	Same	99
	Customers under consolidated management	Proportion of bills issued	99
All other costs	Share of customers	Same	895
	Total debt management costs		1,941

The cost of specialised commercial management (SCM) or consolidated management (CM), are allocated according to the number of SCM and CM customers in each consumption band. As with KAM customers, these are spread across all sizes of customer but proportionally more will fall into the upper consumption bands. The cost of a specialist team dealing with debt collection from the large customers is allocated in proportion to the income from customers using more than 10 Ml/a, with other credit management activities allocated to the vast bulk of customers who fall below this level.

### Doubtful debts

Cost	Driver (between consumption bands)	Between services	Costs £000
Bad debt charge	Share of write-offs	Share of income	3,396

For bad debt, we have looked at the track history of write offs by band stretching back to 2007, which gives a good view of the likelihood that customers in the lower band will fail to pay. However, even in an extended period such as this, the number of very large customers (50+ MI/a) is so small that there have been few defaults during the period (and none in some years).

When large customers *do* default the level of income written off is significant and this is a risk that needs to be recognised. In order to give a reasonable view, we have averaged the default rate for customers using more than 10 MI/a. This is still a small sample (1,250 customers using over 10 MI/a vs 216 using more than 50 MI/a), but an improvement in terms of any statistical test.

#### *Water efficiency*

<b>Cost</b>	<b>Driver (between consumption bands)</b>	<b>Between services</b>	<b>Costs £000</b>
Business Direct Team	Effort-weighted share of customers	Share of demand-side benefits	73
All other water efficiency	Share of customers	Share of demand-side benefits	212
	Total water efficiency costs		285

Water efficiency activity undertaken by our Business Direct Team is allocated in line with the number of customers under Key Account Managers. Other activity is allocated based on the share of customers. Costs are allocated between water and foul sewerage alone since this is where customers would benefit from reductions in the volume charged.

#### *Other direct costs*

<b>Cost</b>	<b>Driver (between consumption bands)</b>	<b>Between services</b>	<b>Costs £000</b>
Other direct costs	Share of customers	Same	709

Other direct costs are apportioned equally across the customer base. As noted in 3.2 there are a number of one-off items included within the total this year.

#### *General and support costs*

<b>Cost</b>	<b>Driver (between consumption bands)</b>	<b>Between services</b>	<b>Costs £000</b>
G&S Costs	Share of other retail costs excluding doubtful debts and depreciation	Same	3,230

General and support (G&S) costs are effectively allocated as a mark-up on other operating expenditure. The primary driver for the allocation of G&S costs between controls is the number of full time equivalent employees (FTEs). Most retail costs are employment costs, or are allocated between activities on the basis of FTEs, so the cost in other retail activities is a reasonable proxy for FTEs. Bad debt and the depreciation charges are an exception as they are not driven by employment costs and therefore G&S costs have not been loaded onto bad debt or depreciation.

### Depreciation

Cost	Driver (between consumption bands)	Between services	Costs £000
Meter reading devices	Share of meter reads	Same	4
Billing systems	Billing costs	Same	96
Customer Management Systems	Billing and contact costs	Same	82
Credit Control Systems	Debt management costs	Same	26
Other Recharges	G&S Costs	Same	24
	Total depreciation		231

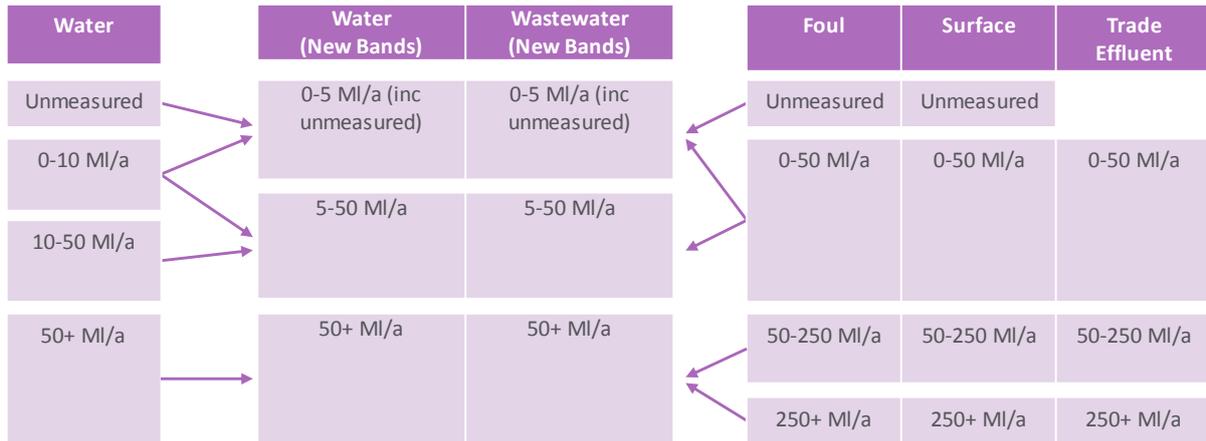
As noted in section 3.2, under the principal user approach non-household retail does not have any assets; all capital costs appear as recharges. However, for the purpose of retail pricing it is more pragmatic to treat these recharges as if they were depreciation; going forwards the non-household retail business will be managed by Water Plus which has its own assets and this approach provides a basis for allocating them between customers.

- A small number of hand-held meter reading devices are allocated by the number of reads.
- Billing systems have been allocated based on the billing expenditure allocated to each category.
- Customer relations management systems have been apportioned based on the combination of billing and contact costs.
- Management and general assets have been allocated based on G&S costs (which are a proxy for FTEs as discussed above).

### 3.4 Comparison with PR14

*The new controls cut across our existing tariff structure. To make a comparison, we need to aggregate the costs that would have been allocated to the new bands under the old approach.*

As well as changes in consumption banding, the average revenue controls for the foul sewerage, surface water and trade effluent have been combined into waste water. The diagram below shows how we have mapped our existing bands for the purpose of this comparison.



**Special agreements:** In addition to the controls above, there were separate controls for special agreements (water, foul sewerage and trade effluent). These customers have been mapped across all controls according to their consumption.<sup>1</sup>

For large water users (50+ MI/a), there is a direct correspondence between the old band and the new standard bands - but this is the only time this occurs. For the waste water service, the top band includes costs from 6 of the old revenue controls, with elements from two more. Our lower bands from each service have been split between 0-5 MI/a and 5-50 MI/a.

*In broad terms, we have allocated more cost to water, and more cost to larger customers than we did at PR14.*

Overall our revised allocations have moved around £1.1m in costs from waste water to water. This is the product of two effects:

- The movement in overall cost as described in s3.2; and
- Allocations between customers as described in s3.3.

For example, the largest difference in cost allocation relates to billing, where costs have fallen for both services. This makes a bigger difference on the wastewater service because more than half of billing costs have been allocated to waste,

<sup>1</sup> The vast majority of special agreements (89 water, 3 sewerage and 1 trade effluent) are small customers. There are 18 water customers that have moved to the 5-50 band and 2 trade effluent customers which have moved to the upper (50+ MI/a) band.

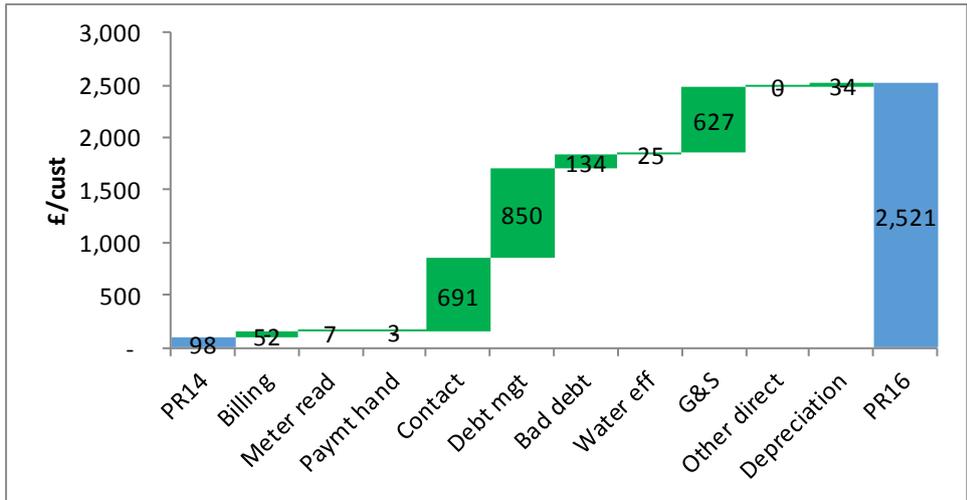
### Movement in overall costs from waste water to water

£m	Water	Waste	Key movements
<b>PR14</b>	<b>7.3</b>	<b>8.6</b>	
Billing	(0.7)	(1.2)	Efficiency (s3.2), with more than half of the benefit flowing to waste based on number of bills
Meter reading	0.1	0.1	
Payment handling	(0.0)	(0.0)	
Contact	0.7	(0.2)	Greater proportion of network calls allocated to water. All NST visits allocated to water (see 3.3)
Debt management	0.1	0.1	
Bad debt	(0.3)	(0.6)	Lower costs overall, with more than half of bad debt being allocated to waste water based on revenue
Water efficiency	0.1	0.1	
Other direct costs	0.0	0.0	
G&S costs	1.3	0.9	Overall increase in G&S allocation to NHH (s3.2), with more than half being allocated to water (s3.3)
Depreciation	(0.2)	(0.3)	
<b>PR16</b>	<b>8.4</b>	<b>7.5</b>	

#### *Movement in costs for larger customers*

As discussed in the sections above, we have looked carefully at the way we allocate the cost of the additional services we provide to key customers: Key Account Management, Specialised Commercial Management and Consolidated Account Management. This activity is not directed solely at the upper bands, because many key customers have multiple sites. For example, councils have a number of smaller sites that are unmeasured or with low consumption. However, these activities are *weighted* towards the upper bands based the number of sites covered. This can be seen in the waterfall chart for the highest consumption band below.

**Water customers using more than 50 MI/a<sup>2</sup>**



At PR14, the cost we attributed to larger customers was towards the low end of industry, as shown in the comparison of gross margins from Ofwat publications. If we exclude Welsh Water from the analysis (given the difference in the legislation which applies), gross margins for customers using more than 50 MI/a ranged from 0.8% to 4.4%; Severn Trent’s gross margin was 1.6%.

Although this is a significant change in cost allocation, in the context of the overall bills it remains a relatively small change. Because there are very few large customers, in monetary values the changes appear to be very large. However, in percentile terms these changes do not look as significant. Overall we are changing the gross margin for the upper band from 1.6% to around 2.9%, so the impact on an end user bill would be in the order of 1%. We have modelled the impact on a sample of customer bills in section 5.2.

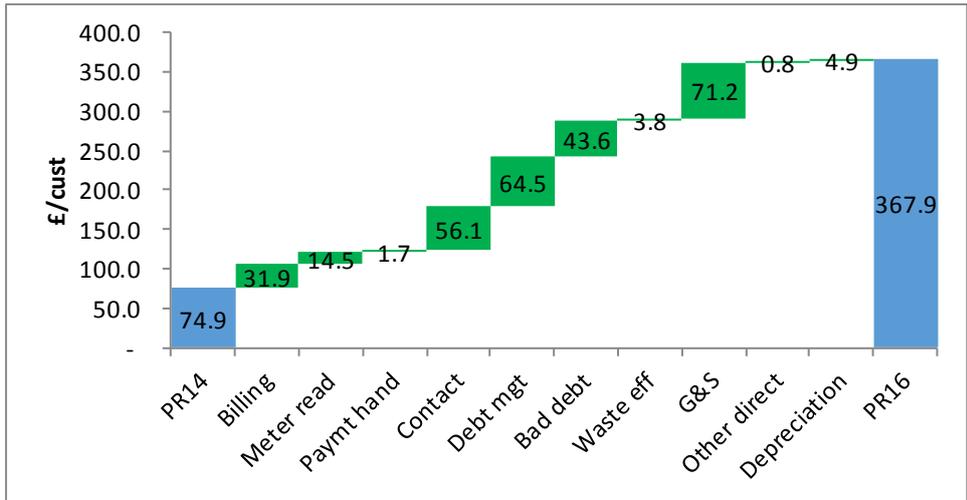
In terms of direction, the movements for the waste water service are very similar, moving from a gross margin of 1.5-1.7% at PR14 to an average of 2.6% for the over 50 band over the remainder of AMP6.

*Movement in costs for the central band*

There is a similar pattern for the middle band in the standard controls (water and waste water). In our current tariffs the 5-50 band contains a mixture of customers – some that we currently treat as large and some who are on our standard tariff rates. We will keep our wholesale structure under review but it is almost certain that a new retail tariff at 5 MI/a will need to be implemented to align with the controls.

<sup>2</sup> The split of costs included in these tables is based on 2015-16 actuals, scaled to the PR14 allowance (a reduction of 2.85%). Therefore, the overall cost per customer will not correspond with the numbers in our revised table 4a for the period 2017-20.

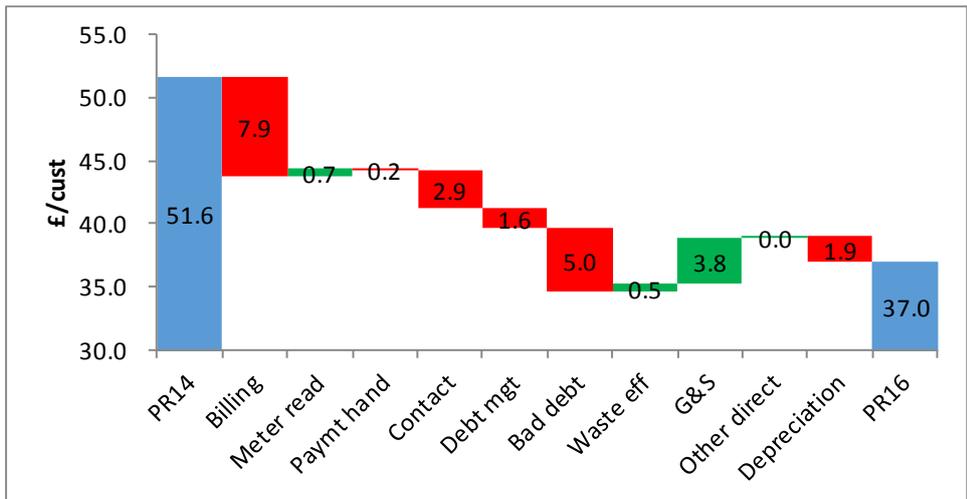
**Waste water customers using between 5 and 50 MI/a**



*Movement in costs for smaller customers*

The flip side of this change is that some costs have been moved out of the lowest bands. In monetary terms, these changes do not appear very large because they are spread over a wider customer base. However, retail costs are a larger proportion of these customer bills, which makes the movement look slightly more significant when expressed as a percentage of the total bill (up to 1.9% for the smallest customers).

**Waste Water customers using less than 5 MI/a**



**3.5 Forecast costs**

*We have applied our allocations to a revised forecast for non-household retail costs. This takes account of differences in the expected mix of costs going forward.*

Even though total costs allowed at PR14 are not changing, the split between customers can alter depending on the level of cost attributed to each activity as shown in s3.4. We considered whether the cost attributed to these retail activities was likely to alter significantly in future (bearing in mind that they are moving to a separate company).

In broad terms, we think the cost structure for non-households in the Severn Trent area is likely to remain quite similar in the near future. The changes in organisation and allocation of cost that were made this year will probably reflect the cost of serving this group for the remainder of AMP6. We are not expecting to change the way we serve the majority of our existing customers in the short term. The focus for Water Plus will be on starting up the new business.

The majority of costs were therefore forecast forward from the Severn Trent 15/16 costs, flexing for the number of Service Point IDs (SPIDs). These assumptions were consistent with the updated property and volumes numbers used in the wholesale revenue forecast and elsewhere in the submission.

We have made changes for clear differences in the new organisation. Set up costs and the new IT platform have been reflected in the depreciation costs. Synergies are expected to arise mainly in General and Support costs and are reflected from 17/18.

For doubtful debts, our forecast for 16/17 assumes 1.0% of revenue, rising to 1.1% for the remaining years. In 15/16 and 16/17 there have been significant one-off wins due to process changes and a focus on old debt which is expected to stabilise from 17/18 onwards.

As noted in s3.2 the 15/16 figure for “Other Direct Costs” was driven by one-off transformation costs due to Market Opening. We have held these costs flat going forward as we expect business improvements to ensure efficiencies. There will be fixed costs which do not flex with the number of properties served.

Forecast £m	15-16	16-17	17-18	18-19	19-20
<b>Billing</b>	1.240	1.234	1.229	1.224	1.220
<b>Payments handling</b>	0.235	0.234	0.233	0.232	0.231
<b>Non Network Customer Enq &amp; Complaints</b>	2.003	1.994	1.986	1.978	1.971
<b>Network Customer Enquiries &amp; Complaints</b>	0.780	0.776	0.773	0.770	0.767
<b>Debt management</b>	1.941	1.932	1.924	1.916	1.910
<b>Doubtful debts</b>	3.396	3.876	4.485	4.518	4.527
<b>Meter reading</b>	1.385	1.379	1.373	1.368	1.363
<b>Demand Side Water efficiencies</b>	0.175	0.174	0.174	0.173	0.172
<b>Customer Side Leaks</b>	0.110	0.109	0.109	0.108	0.108
<b>Other Direct Costs</b>	0.709	0.709	0.709	0.709	0.709
<b>General &amp; Support</b>	3.230	3.230	3.230	3.230	3.230
<b>Depreciation<sup>3</sup></b>	0.231	1.458	2.511	2.618	2.725
<b>Total forecast cost</b>	15.434	17.105	18.734	18.843	18.932
<b>Allowed cost</b>	15.888	16.383	17.960	18.686	19.226

Within tariffs, these forecasts are scaled to the PR14 allowance – in essence, this is an efficiency challenge as total costs are expected to be above those allowed in the Final Determination over the course of AMP6.

<sup>3</sup> As noted in section 3.2, the figure for 2015-16 appears as a recharge rather than depreciation in the accounts due to the principal user approach.

### 3.6 Customers

*The property forecasts used in this submission represent our best view of the number of customers within each of the new bands going forwards*

As we have noted in other sections, the new bands cut across existing tariff structures. We have had to split our existing customer base across these bandings. In addition, the waste water controls represent a kind of “unique customer” approach for that service. Our previous NHH controls were based on the services provided (foul sewerage, surface water and trade effluent). In order to establish the denominator for the new control we have had to identify the number of customers who receive more than one service to avoid double-counting.

The property numbers are based on extracts from our “Target” billing system at year end. Direct comparison with PR14 on the new bands is made difficult because of the changes described above. However, it is fair to say that compared to PR14, the number of properties is lower than we included at that time. The most pronounced area is on the sewerage side, where we had a separate control for unmeasured surface water drainage properties. Around 10,000 of these fell below the minimum rateable value at which it would be economic to bill. In practice, these properties are not billed and should not have been included in our numbers at PR14.

Forecast volumes are projected forward from that starting point. The numbers in each sub-category are adjusted for:

- Optants (relatively low numbers each year and a movement within band for the purpose of PR16)
- New connections; and
- Demolitions (or properties becoming vacant)

Overall, we are expecting the number of non-households to decline by 0.3% to 0.4% per year, in line with historical trends.

*We have not adjusted property numbers to take account of changes in eligibility.*

In our consultation response, we expressed the view that it was simpler to leave the changes in eligibility outside the PR16 process. Adjusting allowed cost or revenue for these movements would be complicated – we might have to consider what cost would have been assigned to them at PR14 and then reassign this to the relevant band for the customer.

The best data we have at present suggests that there will be a net movement of c6,600 properties from non-household to household.

	Number
Household to Non-Household	4,564
Non Household to Household	11,134
<b>Net movement to Household</b>	<b>6,570</b>

The properties concerned will all be in the lowest band and will have bills very similar to households (otherwise it is unlikely there would be room for confusion). The form of the average revenue controls for

household and non-household retail will take care of these adjustments automatically. We saw that Ofwat had reached this conclusion in its final statement of method.

### 3.7 Forecast wholesale income

*We have reforecast wholesale income for this submission, because total non-household income has a significant bearing on the way we allocate our margin.*

Wholesale revenue affects the Average Revenue Controls (ARCs) in a number of ways:

- The **bad debt** calculation within our costs is forecast as a percentage of income, including wholesale. Although overall cost allowances do not change, this does affect their distribution.
- The aggregate **net margin** in Ofwat’s approach is set as 2.5% of non-household revenue. Since wholesale is 93% of total non-household revenue, 93% of the margin will flex in line with wholesale income.
- Companies need to cover **working capital** costs, which are driven by the value of income outstanding. This affects the way we need to distribute the margin across our customer base.
- The **new form of control** will be expressed as a uniform **percentage gross margin** for the upper bands. Given that cost allowances are fixed, a higher percentage is required to recover these costs when wholesale income falls.

This last point is important, because we expect nominal NHH wholesale income to be around 10% lower than forecast at Final Determination in 17/18. The implication is that a gross margin control set on the basis of FD wholesale assumptions could be 10% lower than it needs to be. Our aim is to ensure that we can comply with our duties under Competition Law. To avoid a margin squeeze, ARCs need to be as accurate as they can be.

Basket Year RPI (Nov t-1)	13-14	14-15	15-16	16-17	17-18	18-19	19-20
Ofwat FD	2.98%	2.65%	2.95%	2.80%	3.40%	3.50%	3.30%
Actual / Oxford Economics Forecast	2.98%	2.65%	1.98%	1.05%	2.17%	2.99%	3.52%
Cumulative difference	-	-	-1.03%	-2.94%	-4.38%	-5.10%	-5.02%

As can be seen from the table above, lower RPI has been a significant driver of this reduction but it is not the only factor.

The updated wholesale forecast we put forward takes account of all variations in non-household volumes and numbers to date. We apply these to our projected wholesale tariffs, using the same method and model that we use to construct our scheme of charges.

The new form of wholesale control requires us to target a particular level of revenue in each year. This places a premium on forecasting accuracy that did not exist under the old system; with the Weighted Average Charge Increase, all tariff multipliers were known values lagged by one or two years. We are working to continuously improve the accuracy of our forecasts, but some uncertainty is inevitable.

We have factored in two regulatory mechanisms that will impact on wholesale income in 2017/18:

- Our in-period wholesale Outcome Delivery Incentives
- The operation of the Wholesale Revenue Forecasting Incentive Mechanism (WRFIM)

These impacts have been limited to what we know from 2015/16 and the impact that we can reasonably expect to see as a result. We have not anticipated any further outperformance or further deviation from the wholesale controls that would need to be corrected.

#### WRFIM

2015-16 prices	Water			Wastewater		
	Control	Actual	Variance	Control	Actual	Variance
<b>Principal Charges</b>	651.3	664.9	13.6	706.7	704.6	(2.1)
<b>Connection Charges</b>	16.5	19.9	3.4	4.5	13.2	8.7
<b>Total</b>	667.8	684.8	16.9	711.2	717.8	6.6

We have applied these impacts through Ofwat’s WRFIM model, uplifting for the impact for RPI and applying the penalty for water. As can be seen, part of the variance relates to connection charge income. This relates to three factors:

- Better collection efficiency, particularly on infrastructure charges
- Higher volume of connections
- Omission of requisition income from the wholesale revenue cap at FD. In effect, all requisition income Severn Trent collects is a variance against FD (a variance against zero).

We have assumed that part of the variance in capital income (£5.7m overall) can be dealt with through changes to capital income rather than through principal charges.

#### Outcome Delivery Incentives (ODIs)

12-13 prices	£m
<b>Water</b>	(1.0)
<b>Waste Water</b>	19.8

For our in-period ODIs, we have factored the amounts above into wholesale charges for 2017-18, uplifted for RPI and grossed up for tax. As with the WRFIM correction, this incentive is spread across the customer base – around a quarter will be recovered through non-household charges and the balance from households. As this has been done for the purpose of a revenue forecast, these amounts exclude end-of-period ODIs. The total considered here therefore differs from the overall reward figure published elsewhere.

## 4. Allocation of net margin

### 4.1 Working capital

*Working capital is covered from the margin on sales, but represents a cost to the retail business.*

We treat the financing costs on working capital as a cost, which we deduct from allowed net margin to arrive at a residual value (equivalent to profit before tax). Working capital requirements are based on a review of the days to bill and days to pay across the customer base.

For financing working capital, we assumed an interest rate of 4.19% nominal. This is equivalent to the rate which the CMA determined for Bristol Water. The CMA decision is more recent than our Final Determination and represents the most recent authoritative study into the long-term cost of debt for the water sector. As we explained in our original PR14 submission, we consider that attempting to determine a separate WACC for a stand-alone retail business is not the correct approach. We should not assume that competing retailers are small (most competing retailers are likely to be the retail arms of other incumbents); an Equally Efficient Operator (EEO) should have costs (including financing costs) equal to the incumbent.

In the same way as costs, we looked at the number of days that we needed to finance at a granular level as listed in s3.3 (i.e. unmeasured, 0-1 MI/a, 1-5 MI/a etc). The characteristics of some groups within the broad bands are quite different – for example, unmeasured customers now sit within the 0-5 MI/a band, but are quite different to measured customers in terms of days to bill and to pay. However, it is possible to aggregate the interest across the broad bands and convert this into an effective percentage of revenue that is required to fund working capital.

Working capital cost as % revenue	Water	Sewerage	Surface Water	Trade Effluent
<b>Unmeasured and 0-5 MI/a</b>	1.00%	0.98%	0.99%	1.05%
<b>5-50 MI/a</b>	0.58%	0.65%	0.61%	0.45%
<b>50+ MI/a</b>	0.41%	0.41%	0.41%	0.41%

### 4.2 Residual margin

*Once working capital has been deducted, we allocate the residual margin as a uniform mark-up on retail costs. This provides the same level of headroom against changes in retail costs within each band.*

The net margin of 2.5% is applied to allowed costs and forecast wholesale income to give an overall net margin. Once working capital cost is removed, we have a residual margin. Our uniform mark-up provides equal headroom in all bands, which reduces the chance that differences in cost or financing requirements will impose a margin squeeze on any competitor. The calculation to derive the mark-up is laid out below:

Calculation of residual margin	17-18	18-19	19-20
<b>Total allowed cost</b>	18.0	18.7	19.2
<b>Wholesale revenue</b>	361.5	386.5	374.7
Total before margin	<b>379.5</b>	<b>405.2</b>	<b>394.0</b>
Net Margin @2.5%	9.7	10.4	10.1
<b>Total including margin</b>	<b>389.2</b>	<b>415.5</b>	<b>404.1</b>
<b>Net Margin</b>	9.7	10.4	10.1
<b>Total working capital</b>	(3.0)	(3.2)	(3.1)
<b>Residual margin</b>	6.7	7.2	7.0
<b>Cost including working capital</b>	21.0	21.9	22.4
<b>Mark-up on cost including working capital</b>	31.9%	32.7%	31.1%

This mark-up is then applied to the costs for each customer group.

### 4.3 Overall margins

*Gross margins for the two uniform bands are broadly in line with the indicative levels Ofwat set out in the final statement of method*

Proposed gross margins	17-18	18-19	19-20	Average
<b>Water</b>				
Unmeasured and 0-5 MI/a	11.7%	11.7%	11.6%	<b>11.7%</b>
5-50 MI/a	4.5%	4.6%	4.7%	<b>4.6%</b>
50+ MI/a	2.9%	2.9%	2.8%	<b>2.9%</b>
Overall	8.1%	8.2%	8.2%	<b>8.2%</b>
<b>Waste</b>				
Unmeasured and 0-5 MI/a	7.6%	7.5%	8.0%	<b>7.7%</b>
5-50 MI/a	5.1%	4.8%	5.1%	<b>5.0%</b>
50+ MI/a	2.7%	2.5%	2.7%	<b>2.6%</b>
Overall	6.3%	6.1%	6.5%	<b>6.3%</b>
<b>Overall</b>				
Unmeasured and 0-5 MI/a	9.2%	9.2%	9.5%	<b>9.3%</b>
5-50 MI/a	4.7%	4.7%	4.9%	<b>4.8%</b>
50+ MI/a	2.8%	2.6%	2.7%	<b>2.7%</b>
Overall	7.1%	7.0%	7.3%	<b>7.1%</b>

In general, gross margins are higher for water than for waste. This reflects the weighting of operating costs to the water service, for the reasons set out in section 3.3. This is partly offset by working capital requirements; there is more wholesale revenue to finance for waste water. In the central band (5-50 MI/a) this effect outweighs higher costs in water; it is a function of the customer base where trade effluent customers have been rolled in with waste water.

*Net margins remain weighted towards the lower customers, reflecting the fact that retail costs are a greater proportion of small customer bills*

Given that we apply the residual margin as a mark-up on cost, to provide headroom against variations, it is inevitable that net margins will appear to be higher when measured as a percentage of sales. As we explained in section 4.2, we think it is more useful to look at the amount of profit the retailer will earn for each pound of cost it incurs for serving a customer – this is the same across the board.

Proposed net margins	17-18	18-19	19-20	Average
<b>Water</b>				
Unmeasured and 0-5 MI/a	3.8%	3.9%	3.7%	3.8%
5-50 MI/a	1.7%	1.7%	1.7%	1.7%
50+ MI/a	1.1%	1.1%	1.1%	1.1%
Overall	2.7%	2.8%	2.7%	2.7%
<b>Waste</b>				
Unmeasured and 0-5 MI/a	2.8%	2.8%	2.9%	2.8%
5-50 MI/a	1.8%	1.8%	1.8%	1.8%
50+ MI/a	1.1%	1.0%	1.0%	1.0%
Overall	2.3%	2.3%	2.3%	2.3%
-				
<b>Overall</b>				
Unmeasured and 0-5 MI/a	3.2%	3.2%	3.2%	3.2%
5-50 MI/a	1.7%	1.7%	1.7%	1.7%
50+ MI/a	1.1%	1.1%	1.1%	1.1%
Overall	2.5%	2.5%	2.5%	2.5%

In general, net margins are also higher in water than waste. This is driven by a constant margin, applied to a higher cost base. The impact is partly offset by working capital, as noted above.

## 4.4 Compliance with competition law

*We take our obligations under competition law very seriously, and have implemented a number of measures to ensure that we are able to demonstrate compliance.*

The method we have used to allocate margins is designed to ensure that we do not impose a margin squeeze. We have also changed our tariff structure to ensure that retailers can cover their costs, and we undertake an annual margin squeeze test on our actual charges so that our Board can provide assurance that there is sufficient margin for an entrant to compete.

*Our uniform mark-up provides us with a degree of headroom against changes in operating cost and financing requirements.*

The method we have used to allocate margin means that headroom is spread evenly against costs. It would be possible to adopt a more complex approach in which we estimated the degree of control that we have over particular costs. For example, it could be argued that we have more control over our own staff costs than over the cost of debt or bad debt costs, which are influenced by external factors. In the long run there are few (if any) costs associated with retail that cannot be managed to some degree and therefore we believe that a simple approach is reasonable.

Our costs, and those of an entrant, could vary for a number of reasons. There is no allowance for:

- Inflation;
- The cost of customer acquisition;
- The new investments that we are making in order to set up Water Plus.

All of these pressures need to be absorbed through efficiency. The headroom that our approach provides is therefore very important.

#### *Tariff structure*

In 2016/17, we implemented a new tariff structure. This introduced a fixed charge for each band of our current retail control, specifically designed to ensure that minimum retail costs could be recovered from all customers. Previously, there were some services where bills were based 100% on rateable value, volume or surface area. With a very low volume or other multiplier, a unit rate charge would not recover enough to cover minimum retail charges.

#### *Margin squeeze testing*

As part of our annual charges calculations, we perform a “margin squeeze” test on our actual tariffs. This examines whether the retail component of charges for a cross section of customers (rather than the average included in the control) is sufficient to cover Long Run Incremental Costs.

The margin squeeze test relies on a number of assumptions in moving from the Fully Allocated Cost (as included in the tariff) to a LRIC.

- The cost of acquisition is added in; from a review of literature and practice we assume that the annualised cost is equal to 20% of the available net margin.
- Some overheads are removed on the basis that these would be supported by an entrant’s existing customer base.
- There is an adjustment to bad debt, assuming that competitors will target customers that are not already in debt with their existing supplier or a poor credit history.

The application of this test gives us confidence that the actual retail component of charges is sufficient to cover the costs of an Equally Efficient Operator.

## 5. Stakeholder Engagement

### 5.1 Bill impacts

*We measured the impact of our changes on actual tariffs for a representative sample of customers, which was a key component of our engagement with stakeholders.*

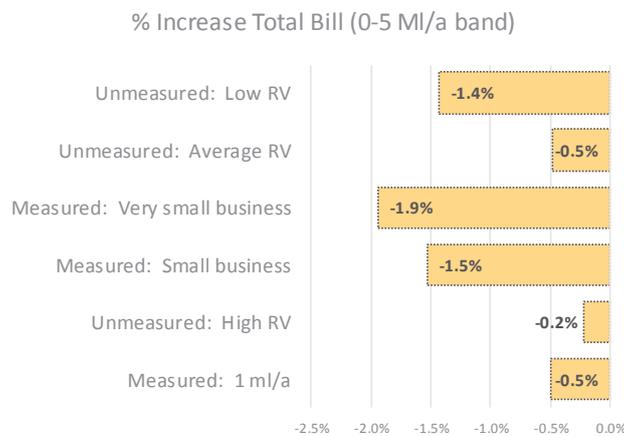
We express bill impacts in terms of the total bill that customers will pay, which is important in order to put changes to the retail element in context. As a percentage of retail charges only, the changes look very significant, but in the context of overall bills the impact is more modest – especially for large customers.

Given that PR16 is concerned only with changes to retail prices, we have not looked at other movements in customer bills (e.g. inflation on wholesale charges). These effects will influence customer bills irrespective of the choices we make at PR16.

The impacts were assessed across a broad cross-section of customers with different levels of consumption, spread across the bands. We applied the increase (or decrease) in retail charges for each band as a percentage uplift to our 2016/17 tariffs in order to derive an indicative impact.

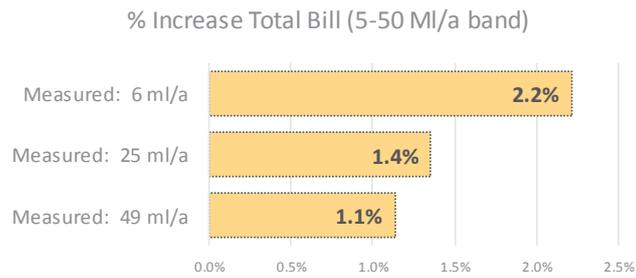
In the graphs below we have presented impacts as a percentage of the combined bill, but we shared the impact to each service individually in with stakeholders, which are included in Appendix 1.

*There are modest reductions in bills for customers within the 0-5 Ml/a band*



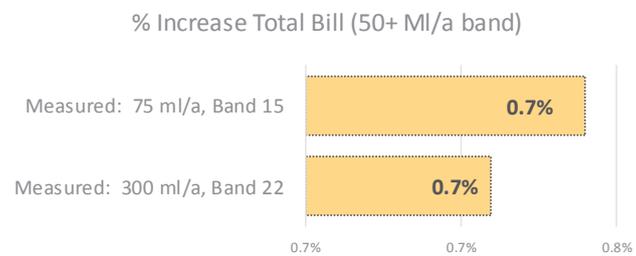
Bill decreases for this group of customers would range between £3 and £6.

*Increases in bills for the 5-50 Ml/a band are the most significant*



In monetary terms, the bill changes for these customers would be much higher than changes for other customers, but remain a small proportion of their bills. In our actual charges we will look at the effect of moving across the boundary from the low to medium bands to ensure that a small change in consumption does not drive a significant incidence effect.

*As a proportion of overall bills, increases for the largest customers are slight*



The percentage increases in the retail charge are in the same order as for the 5-50 band, but retail is an even smaller component of these customers' bills, and thus the overall impact is a smaller %.

## 5.2 Water Forum

*Our Water Forum has been engaged throughout the PR16 process*

In the lead up to the publication of Ofwat's draft statement of method, we outlined the scope of the review and what we were trying to achieve. In advance of Ofwat's revised method for PR16, we believed that the scope of the review was limited to:

- Non-household retail alone (with wholesale and household retail running to 2020)
- Changes in the allocation of cost between bands
- Potentially, changes in the number of controls (but not the form of controls)

From the outset did not think it likely that there would be any change to overall costs or margins. Having managed compliance with 18 Average Revenue Controls (ARCs), and experienced the challenges this created, we would have tried to reduce the number of ARCs if Ofwat had not introduced a standardised approach.

### *Customer research*

We conducted six customer focus groups, involving a spread of small, medium and large customers. We shared the preliminary findings from this research with the Water Forum. With regard to the number of ARCs we considered the results of this research to be inconclusive; customers were generally confused about the distinction between ARCs and customer charges as discussed in s5.3. However, discussion regarding the appropriate number of controls was superseded by Ofwat's standardised bands, which we welcomed.

### *Views on bill impacts*

The Water Forum was asked to comment on the bill impacts shown in s5.1. Given that PR16 is concerned only with non-household retail allocations, we were clear that the impacts related only to the changes proposed as part of the review and that other factors would influence the bill changes that customers would see year on year. We noted in particular:

- Our forecast RPI for 2017/18 (2.2%); and
- Our K factors of +0.05% for water and +0.37% for waste

CCWater were pleased that there would be a modest reduction in bills for the smallest customers. The Forum noted that there were fairly significant increases in the retail component of bills for large users. Their main concerns were:

- Whether overall retail costs were in line with the average cost to serve that Ofwat had indicated as acceptable;
- Whether the changes had been influenced by the Joint Venture arrangements;
- Assurance; and
- How we would gauge customer reaction to the changes.

We were able to confirm that overall costs had not changed from PR14. In terms of the average cost to serve, and that our proposed gross margins for the upper bands (where we have increased charges) are below the indicative level which Ofwat put forward in its draft statement of method.

We will consider how to gauge customer reaction to the changes. As we noted in our consultation response, we view the back-stop protection for larger customers as a theoretical value, because we expect these customers to take advantage of the new retail market when it opens. In a sense, these customers will reveal their views through their decision to switch, move onto a non-default tariff contract, or remain as they are.

## **5.3 Customer research**

*In March 2016 Severn Trent completed research exploring business customers' views about retail price controls and the forthcoming retail competition in April 2017.*

Specifically the objectives of the research were to understand:

- Customer views about retail charging and competition in general
- The specific question on the number of average retail controls.

This second objective, around the number of average retail price controls, was conducted prior to Ofwat announcing its final methodology adopting 3 bands and is no longer relevant.

In total 6 focus groups were held with a mixture of businesses ranging from ‘micro SME’ to ‘medium’<sup>4</sup> from a range of different sectors. The research is entirely qualitative in nature and should be considered as exploring customer views and themes.

Severn Trent has also conducted other research into business customers exploring their views on retail competition more generally; where relevant, we have also included key learnings from this research.

#### *Clear findings on fairness and cost reflectivity*

The clearest outcome of this research was that customers believe that charges should be fair. Fairness means that the charges should be both reasonable and cost reflective: that customers with higher costs to serve be generally charged more. This key finding mirrors that of another piece of research commissioned by Severn Trent in September 2014: in a quantitative survey with a sample of 2,000 customers, the most popular charging option was one that enabled charges to better reflect actual costs incurred. In both cases, the reason for this customer preference is that it means that customers can choose tariffs that enable them to control costs to some extent and that it seems intrinsically fairer.

#### *Views on forthcoming competition*

In line with a number of pieces of research conducted recently, we found business customers were generally unaware of the upcoming changes and their ability to change retail provider. Generally, the prospect of competition is viewed positively; notably the prospect of saving money is the main driver of interest. However, there is some confusion and concern with customers not always understanding that retail competition will not enable them to choose a different water supply or that the breakup of wholesaler and retailer may introduce additional complexity.

Once customers understood that retail competition would impact only a relatively small part of their bill, the interest is much reduced. But when the market begins to operate, it may be that retailers are able to put together more innovative offerings; this could encourage greater participation than would be suggested by retail cost savings alone.

#### *Average revenue controls*

Some customers did understand the notion of average revenue controls, but for many the concept was confusing. Customers’ default concerns were that the prices that they would be charged should simply be fair and cost reflective and they found it very difficult to decouple the concept of average price controls from that of the actual charges that they would pay. Consequently, beyond having some mechanism for protecting customers, especially smaller ones, it was difficult to see if customers had any meaningful views on this topic.

#### *Overall conclusions*

The standout message from this research (and the prior work in 2014) was that customers believe that charges should be fair and cost reflective. In addition, customers do expect protections to be in place especially when it comes to the smaller customer. The nature of those protections was beyond the scope of this research and it was difficult to come to any clear conclusions around average revenue controls due to the level of complexity surrounding the subject.

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<sup>4</sup> Micro SME refers to companies of 9 or fewer employees. Medium sized companies are defined as having fewer than 250 employees. (Source: EU recommendation 2003/361)

## Appendix: Bill Impacts

### NON-HOUSEHOLD RETAIL OFWAT CHANGES

*Comparing PR16 to existing tariffs*

- The new standard tariff bands cut across our existing tariff structure
- The separate services within waste water (which had been separate non-household retail controls) are also combined
- To make comparisons between the old system and the new, we have to aggregate the charges that would have been raised under the old system and allocate them to the new bands

Water	Water (New Bands)	Wastewater (New Bands)	Foul	Surface	Trade Effluent
Unmeasured	0-5 MI/a (inc unmeasured)	0-5 MI/a (inc unmeasured)	Unmeasured	Unmeasured	
0-10 MI/a			0-50 MI/a	0-50 MI/a	0-50 MI/a
10-50 MI/a	5-50 MI/a	5-50 MI/a			
50+ MI/a	50+ MI/a	50+ MI/a	50-250 MI/a	50-250 MI/a	50-250 MI/a
			250+ MI/a	250+ MI/a	250+ MI/a

\* Special agreements, which were a separate category, have now been allocated across the three bands for each service based on usage

*PR16 Bill Impacts*

### NON-HOUSEHOLD RETAIL OUR CHANGES

*Our approach to retail costs*

- Our aim when setting the regulated tariffs is to ensure that charges reflect the costs that we bear for serving different types of customers
- Where we spend more time and effort with particular customers (generally larger customers), this should be reflected in the charge

*We have increased retail tariffs for larger customers*

- We have looked at the additional services we provide to large customers such as Key Account Managers
- This has resulted in costs being moved from smaller customers to the upper bands

*Allocating margin*

- Our approach to allocating our allowed margin has not changed from PR14
- Although Ofwat allows an overall margin of 2.5% on sales, we allocate this as a flat mark-up on retail costs
- This means that for each £1 of retail cost the a retailer incurs, they earn the same profit – regardless of customer size
- In our PR16 submission, more of our net margin has also been allocated to larger customers, but this is a direct consequence of allocating more cost

*PR16 Bill Impacts*

# IMPACT ON CUSTOMERS

*Retail is a small portion of customer bills, ranging from 9% for small customers to less than 3% for the largest users*

- This means that changes in retail prices will only have a small impact on customers' overall bills
- It is important to remember that the Average Revenue Controls (ARCs) are just that – an average
- Within each control, there are a range of wholesale and retail prices depending on the customer
- This is illustrated in the sample bills on the following charts

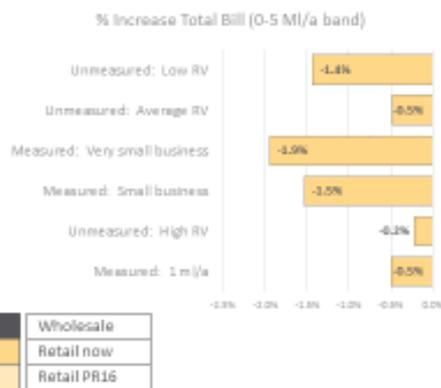
### Other effects on bills

- While we have looked at retail changes in the context of total bills, we have not applied forecast changes in wholesale prices to the outcome as wholesale is outside the scope of this review
- Wholesale bills will generally increase in line with RPI and the K factor (price limit) for the year
  - Our forecast RPI for 2017/18 is 2.2%, but this is of course uncertain
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- There are other factors (such as meter switching) which will tend to push up unmeasured bills more quickly, to the benefit of metered customers
  - Since most non-households are metered, this will tend to benefit commercial customers over households
- We have assessed the impact across a broad range of non-household customers – details are included at the back of this pack

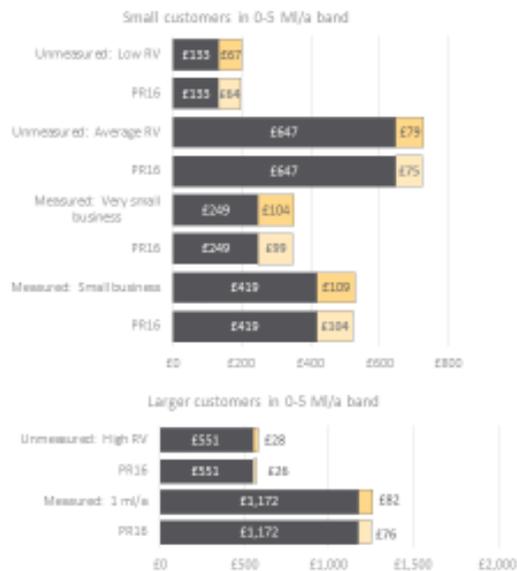
PR16 Bill Impacts

# SMALL CUSTOMERS COMBINED SERVICE

- There is a 4.3% reduction in the retail component of bills for smaller customers
- Looking at a representative range of customers within this band, this would be between £3 and £6
- It is a smaller proportion of bills for larger customers within the banding



PR16 Bill Impacts



# MEDIUM CUSTOMERS COMBINED SERVICE

- We are proposing to increase retail charges for customers within this band by around 72%
- Retail is a small proportion of overall bills for these customers, as can be seen from the graph to left
  - After this change, retail will comprise around 4.8% of bills for customers in this group
- At the highest, this might represent an increase of 2.2% on bills – but only if these customers remain on regulated tariffs when the market opens
- Customers using more than 5Ml/a are in the top 1.5% of the customer base, so there is likely to be significant competition for their business



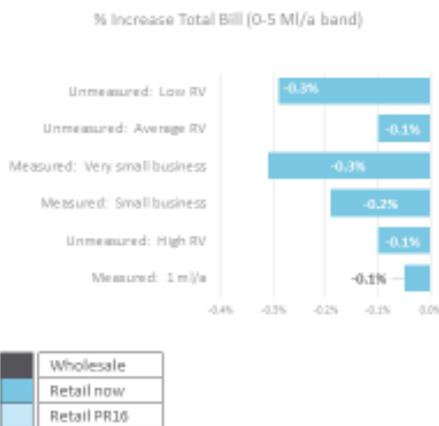
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- Customers using more than 50Ml/a are in the top 0.1% of the customer base
- We are proposing to increase retail charges for customers within this band by around 78%
- Retail is an even smaller proportion of overall bills for these customers
  - After this change, retail will comprise around 2.7% of bills for customers in this group
- This will represent an overall increase of 0.7% for sites in this range – but only if these customers remain on the regulated tariff when the market opens

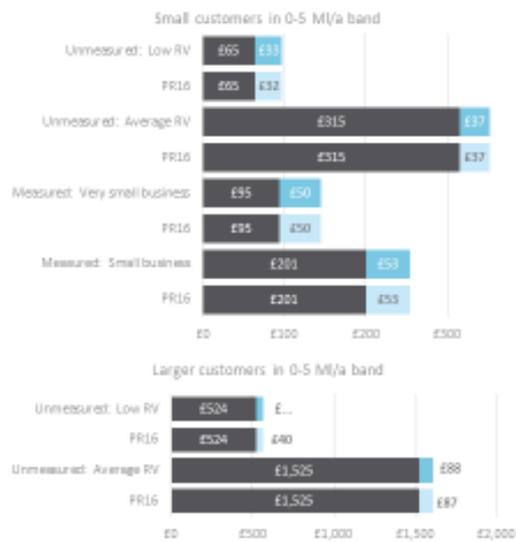


## SMALL CUSTOMERS WATER SERVICE

- There is a 0.9% reduction in the retail component of water bills
- As a proportion of overall bills this will have negligible impact

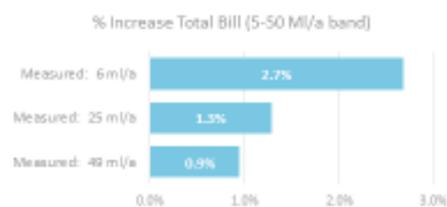


PR16 Bill Impacts

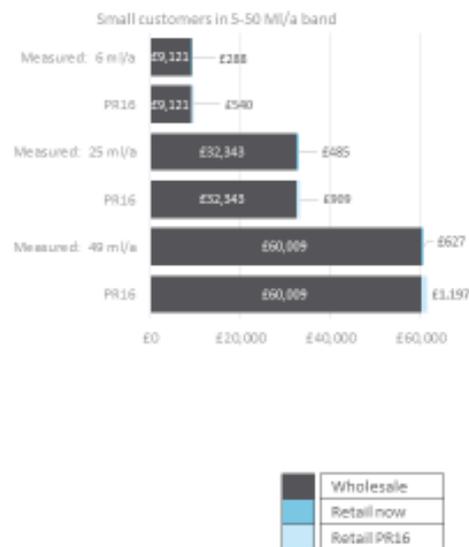


## MEDIUM CUSTOMERS WATER SERVICE

- We propose to increase retail charges for water in this band by around 87%
- After this change, retail will comprise around 4.6% of bills for customers in this group
- At the highest, this might represent an increase of 2.7% on bills – but only if these customers remain on regulated tariffs when the market opens
- As noted, we expect there will be strong competition for these customers, as they are among the largest 1.5% of the non-household customer base

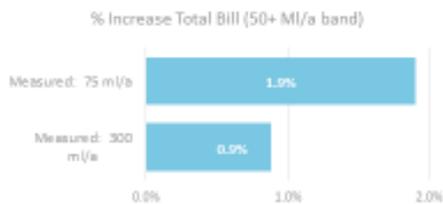


PR16 Bill Impacts



## LARGE CUSTOMERS WATER SERVICE

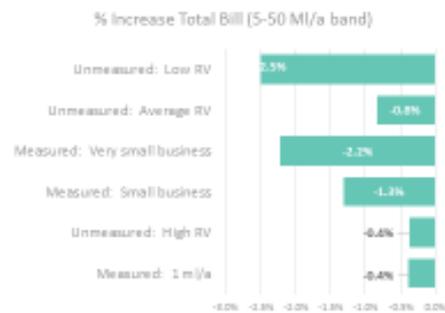
- We propose to increase retail charges for water in this band by around 72%
- After this change, retail will comprise around 2.9% of bills for customers in this group
- At the highest, this might represent an increase of 1.9% on bills
- These customers are the top 0.1% of the non-household customer base
- Prior to AMP6 they were not subject to any formal price control (for retail or wholesale)



PR16 Bill Impacts

## SMALL CUSTOMERS WASTE SERVICE

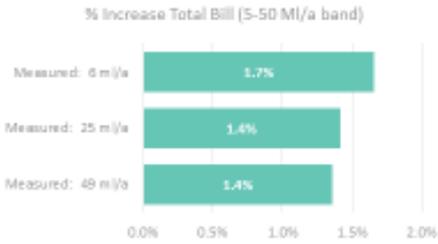
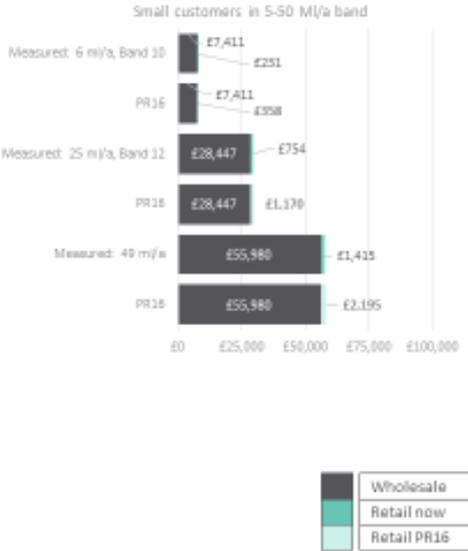
- There is a 7.5% reduction in the retail component of bills
- As a proportion of the overall waste water bill, this is a movement of -0.4% to -2.5% for this customer group



PR16 Bill Impacts

# MEDIUM CUSTOMERS WASTE SERVICE

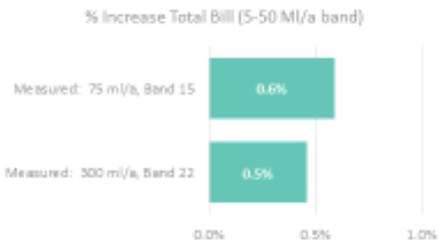
- We are proposing a 55% increase in the retail component of bills
- As a proportion of the overall waste water bill, this is a movement of between 1.4% and 1.7% for our sample customers in this group (which range right across this band)



PR16 Bill Impacts

# LARGE CUSTOMERS WASTE SERVICE

- We are proposing a 68% increase in the retail component of bills
- As can be seen from the graph to left, retail is a very small proportion of the overall bill for the largest 0.1% of non-household customers
- The movement on overall waste bills for this group will be between 0.5% and 0.6% for our sample customers in this group



PR16 Bill Impacts

## EXPLANATORY NOTES INDICATIVE CUSTOMERS

*We have tried to use a broad range of different customer types to assess the impact of our proposals*

- The smallest unmeasured customer in our sample has an RV of £60 – this is a level at which households would pay the minimum charge; “average” and “large” have a higher rateable value than we would expect to see in most households (£300 and £500 respectively)
- Our “very small business” has usage equivalent to a small household (60 m<sup>3</sup>/a)
- When considering waste water bills, we have assumed that customers take full sewerage, including Surface Water Drainage (SWD); the indicative large users occupy bigger sites

Description	Meter	M <sup>3</sup> /a	SWD	Description	Meter	M <sup>3</sup> /a	SWD
Very small business	15mm	60	Band 3	25 Ml/a	50mm	25,000	Band 12
Small business	15mm	130	Band 3	49 Ml/a	50mm	49,000	Band 14
1 Ml/a	28mm	1,000	Band 5	75 Ml/a	80mm	75,000	Band 15
6 Ml/a	42mm	6,000	Band 10	300 Ml/a	150mm	300,000	Band 22

PR16 Bill Impacts



# PR16 – IMPACT OF RETAIL CHANGES

*Circulated to Water Forum  
27 June 2016*

SEVERN  
TRENT

# NON-HOUSEHOLD RETAIL OFWAT CHANGES

## Comparing PR16 to existing tariffs

- The new standard tariff bands cut across our existing tariff structure
- The separate services within waste water (which had been separate non-household retail controls) are also combined
- To make comparisons between the old system and the new, we have to aggregate the charges that would have been raised under the old system and allocate them to the new bands

Water	Water (New Bands)	Wastewater (New Bands)	Foul	Surface	Trade Effluent
Unmeasured	0-5 MI/a (inc unmeasured)	0-5 MI/a (inc unmeasured)	Unmeasured	Unmeasured	
0-10 MI/a			0-50 MI/a	0-50 MI/a	0-50 MI/a
10-50 MI/a			5-50 MI/a	5-50 MI/a	
50+ MI/a	50+ MI/a	50+ MI/a	50-250 MI/a	50-250 MI/a	50-250 MI/a
			250+ MI/a	250+ MI/a	250+ MI/a

\* Special agreements, which were a separate category, have now been allocated across the three bands for each service based on usage

# NON-HOUSEHOLD RETAIL OUR CHANGES

## *Our approach to retail costs*

- Our aim when setting the regulated tariffs is to ensure that charges reflect the costs that we bear for serving different types of customers
- Where we spend more time and effort with particular customers (generally larger customers), this should be reflected in the charge

## *We have increased retail tariffs for larger customers*

- We have looked at the additional services we provide to large customers such as Key Account Managers
- This has resulted in costs being moved from smaller customers to the upper bands

## *Allocating margin*

- Our approach to allocating our allowed margin has not changed from PR14
- Although Ofwat allows an overall margin of 2.5% on sales, we allocate this as a flat mark-up on retail costs
- This means that for each £1 of retail cost the a retailer incurs, they earn the same profit – regardless of customer size
- In our PR16 submission, more of our net margin has also been allocated to larger customers, but this is a direct consequence of allocating more cost

# IMPACT ON CUSTOMERS

*Retail is a small portion of customer bills, ranging from 9% for small customers to less than 3% for the largest users*

- This means that changes in retail prices will only have a small impact on customers' overall bills
- It is important to remember that the Average Revenue Controls (ARCs) are just that – an average
- Within each control, there are a range of wholesale and retail prices depending on the customer
- This is illustrated in the sample bills on the following charts

## *Other effects on bills*

- While we have looked at retail changes in the context of total bills, we have not applied forecast changes in wholesale prices to the outcome as wholesale is outside the scope of this review
- Wholesale bills will generally increase in line with RPI and the K factor (price limit) for the year
  - Our forecast RPI for 2017/18 is 2.2%, but this is of course uncertain
  - Our K factors are +0.05% for water and +0.37% for waste
- There are other factors (such as meter switching) which will tend to push up unmeasured bills more quickly, to the benefit of metered customers
  - Since most non-households are metered, this will tend to benefit commercial customers over households
- We have assessed the impact across a broad range of non-household customers – details are included at the back of this pack

# COMBINED BILLS

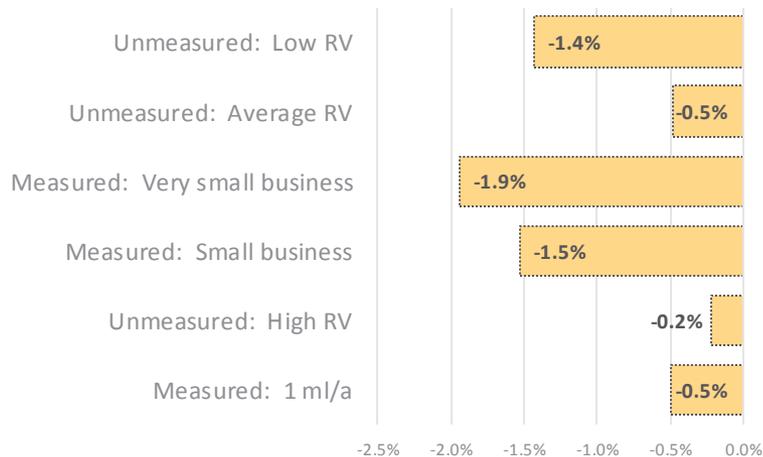
*Impact of PR16 changes*



# SMALL CUSTOMERS COMBINED SERVICE

- There is a 4.3% reduction in the retail component of bills for smaller customers
- Looking at a representative range of customers within this band, this would be between £3 and £6
- It is a smaller proportion of bills for larger customers within the banding

% Increase Total Bill (0-5 MI/a band)



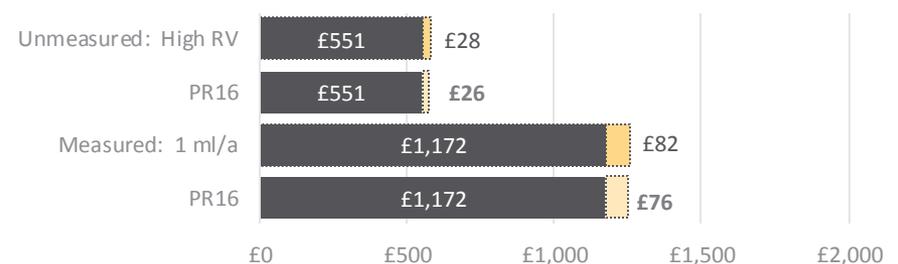
	Wholesale
	Retail now
	Retail PR16

PR16 Bill Impacts

Small customers in 0-5 MI/a band



Larger customers in 0-5 MI/a band



# MEDIUM CUSTOMERS COMBINED SERVICE

- We are proposing to increase retail charges for customers within this band by around 72% for customers within this band by around 72%
- Retail is a small proportion of overall bills for these customers, as can be seen from the graph to left
- After this change, retail will comprise around 4.8% of bills for customers in this group
- At the highest, this might represent an increase of 2.2% on bills – but only if these customers remain on regulated tariffs when the market opens
- Customers using more than 5MI/a are in the top 1.5% of the customer base, so there is likely to be significant competition for their business



% Increase Total Bill (5-50 MI/a band)

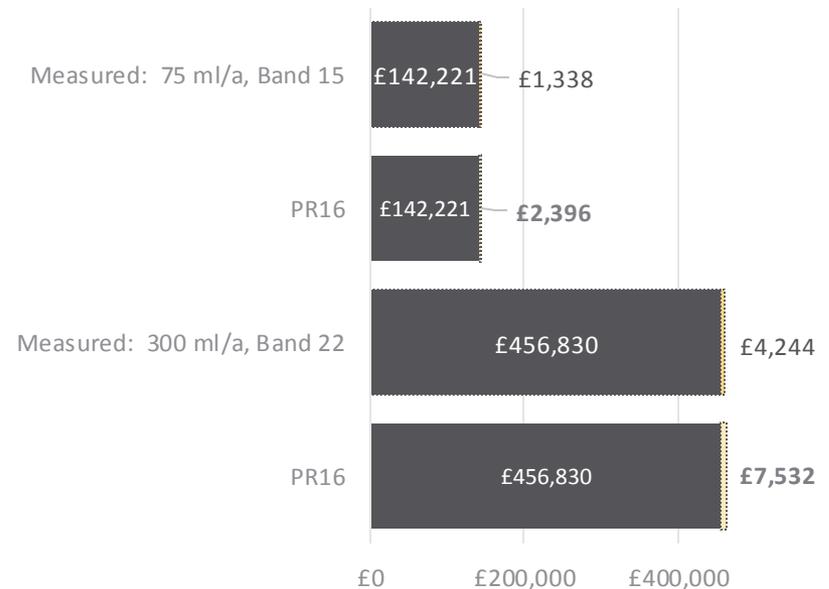


	Wholesale
	Retail now
	Retail PR16

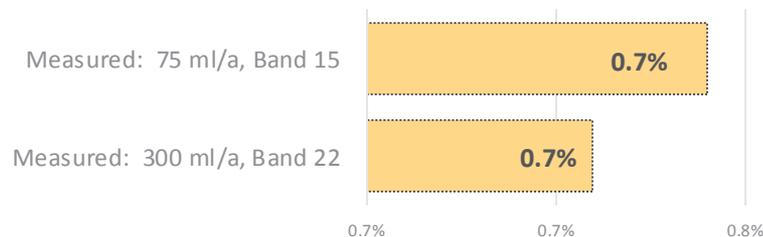
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- Customers using more than 50MI/a are in the top 0.1% of the customer base
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- This will represent an overall increase of 0.7% for sites in this range – but only if these customers remain on the regulated tariff when the market opens

Small customers in 50+ MI/a band



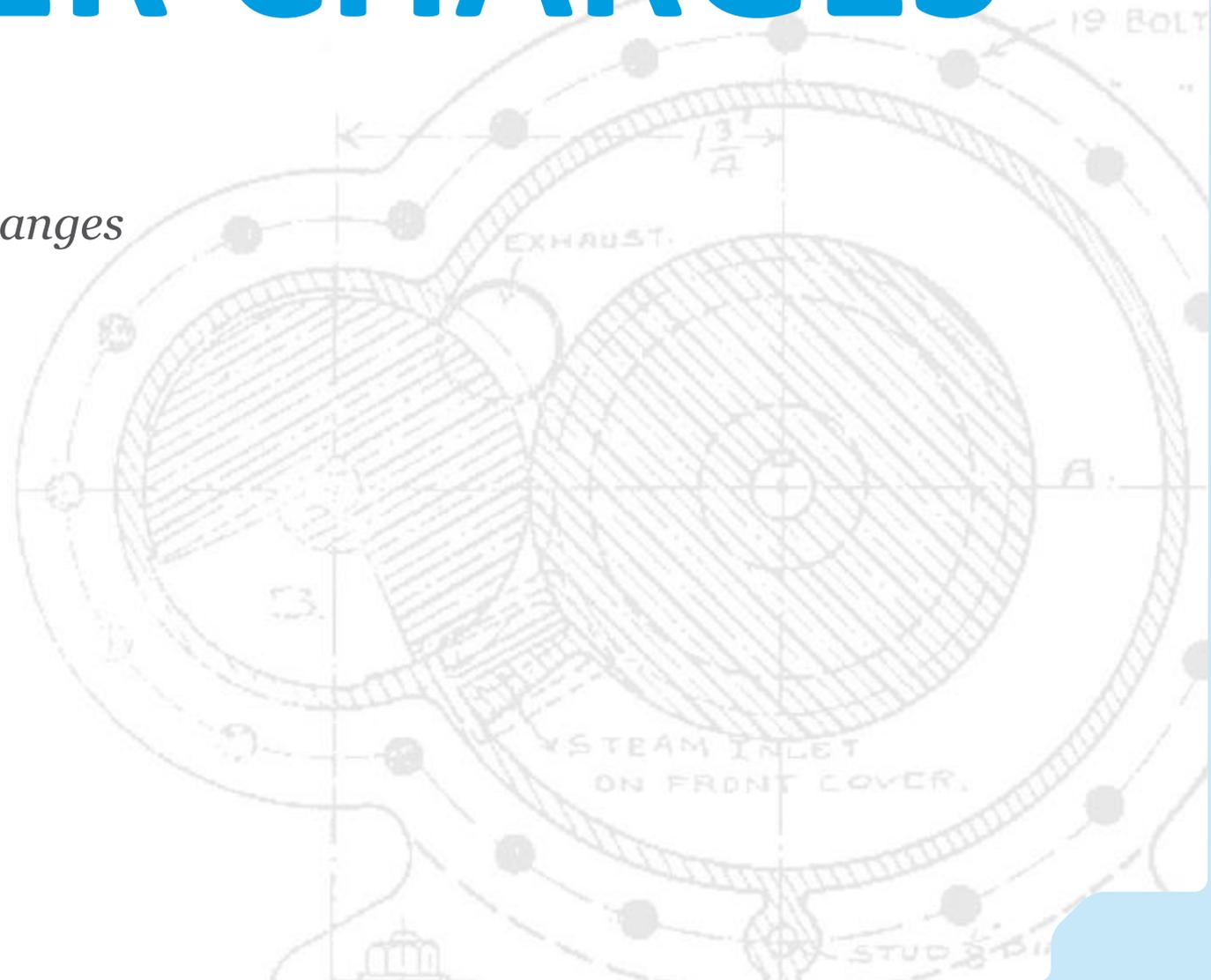
% Increase Total Bill (50+ MI/a band)



	Wholesale
	Retail now
	Retail PR16

# WATER CHARGES

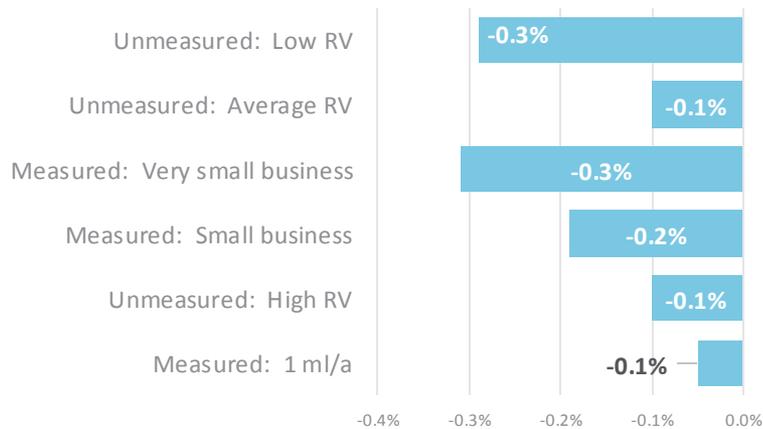
*Impact of PR16 changes*



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- As a proportion of overall bills this will have negligible impact

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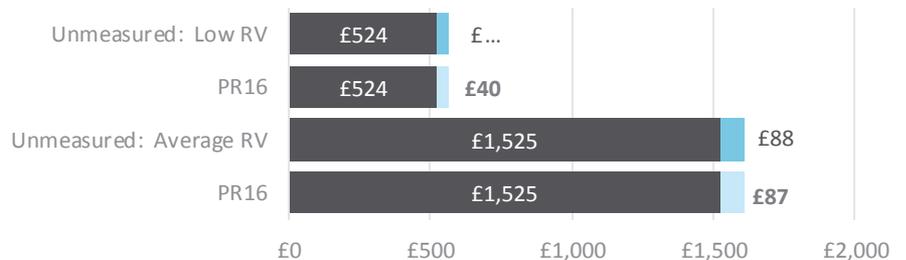


	Wholesale
	Retail now
	Retail PR16

Small customers in 0-5 MI/a band



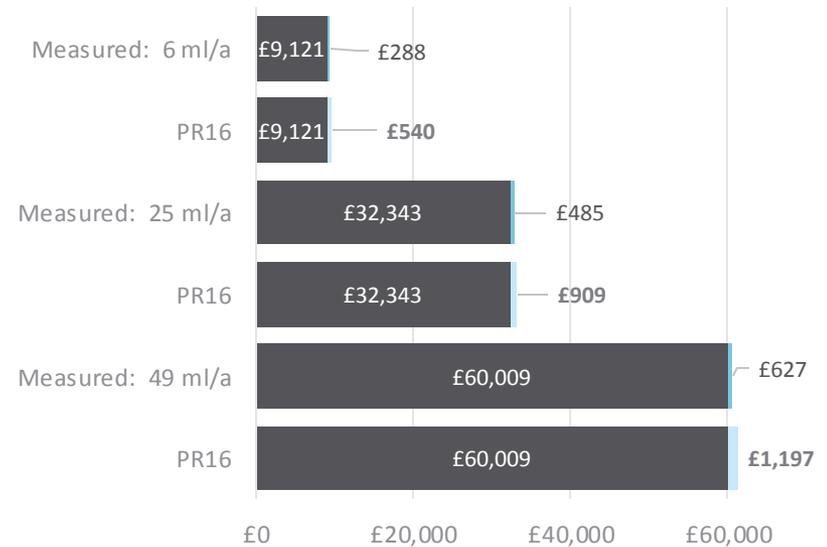
Larger customers in 0-5 MI/a band



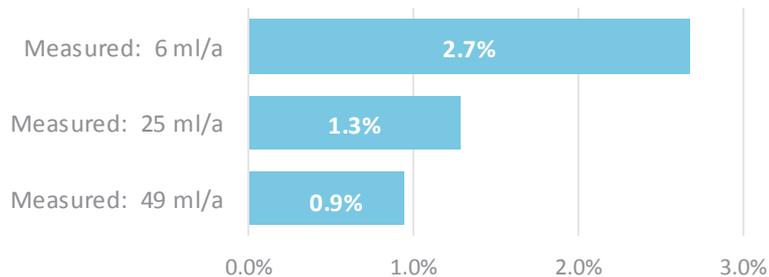
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- As noted, we expect there will be strong competition for these customers, as they are among the largest 1.5% of the non-household customer base

Small customers in 5-50 MI/a band



% Increase Total Bill (5-50 MI/a band)

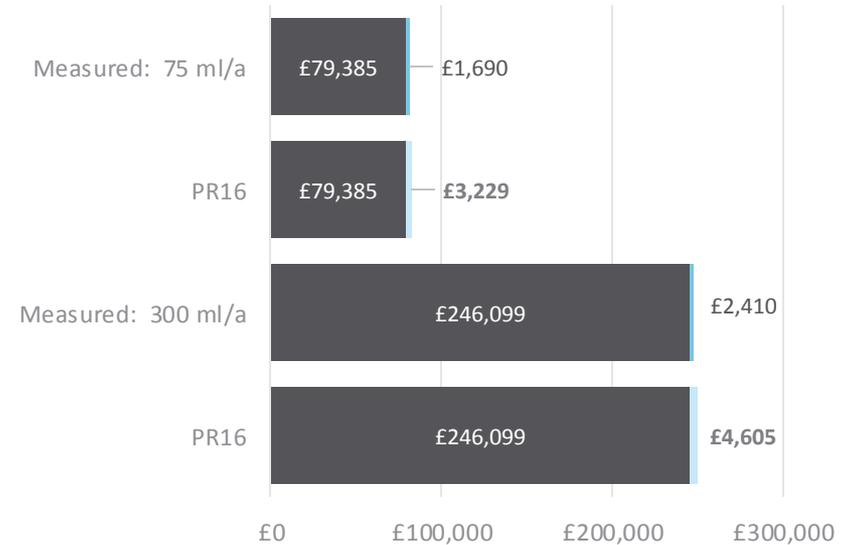


Wholesale
Retail now
Retail PR16

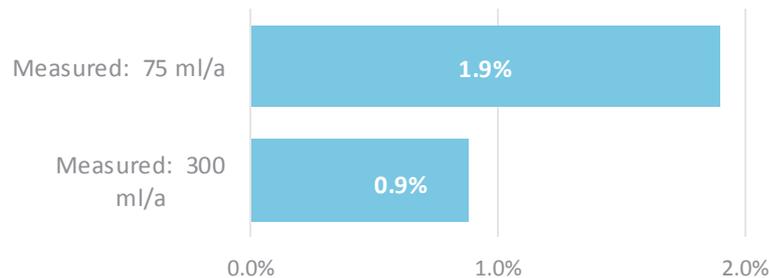
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- Prior to AMP6 they were not subject to any formal price control (for retail or wholesale)

Small customers in 50+ MI/a band



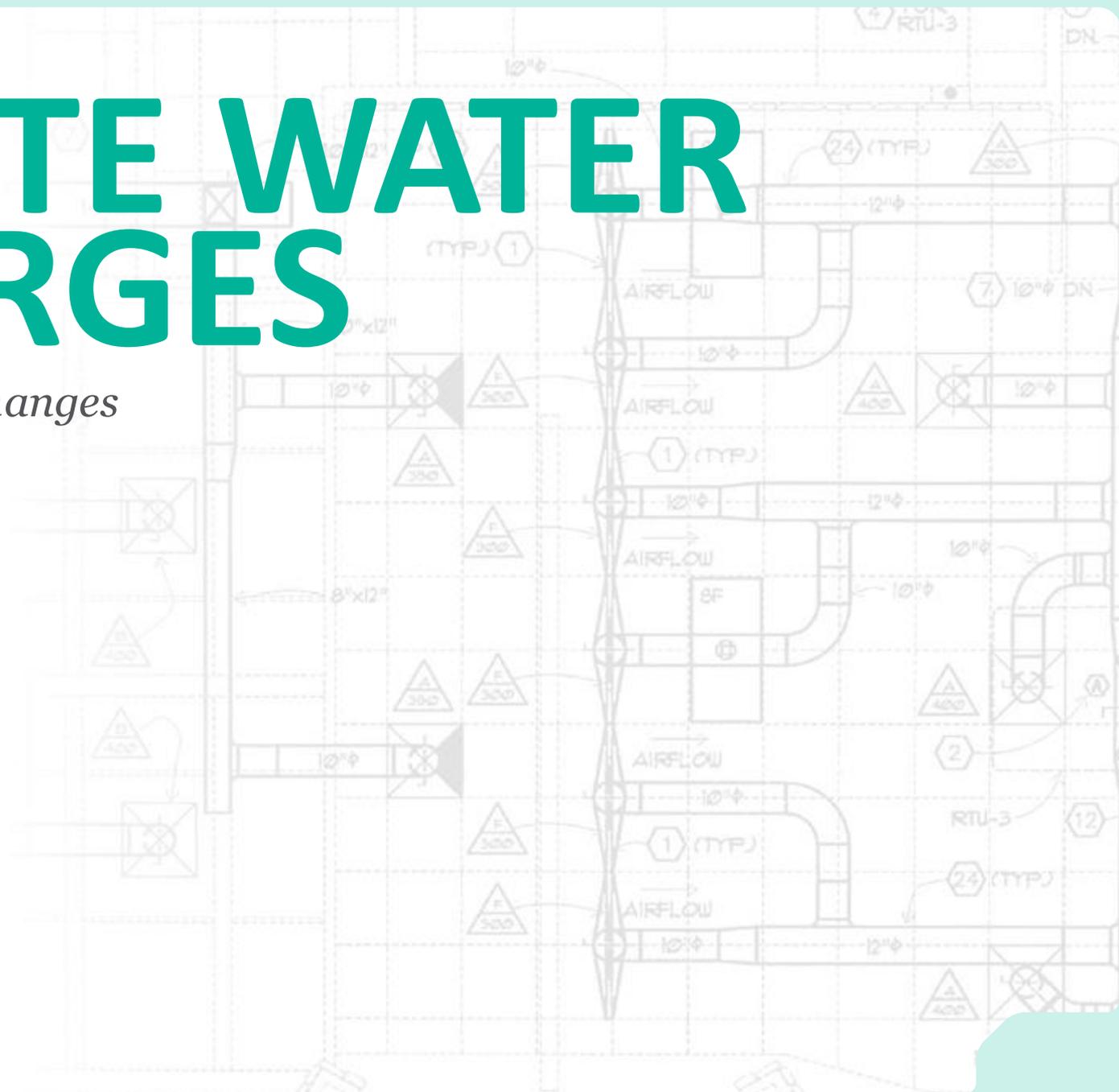
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	Wholesale
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	Retail PR16

# WASTE WATER CHARGES

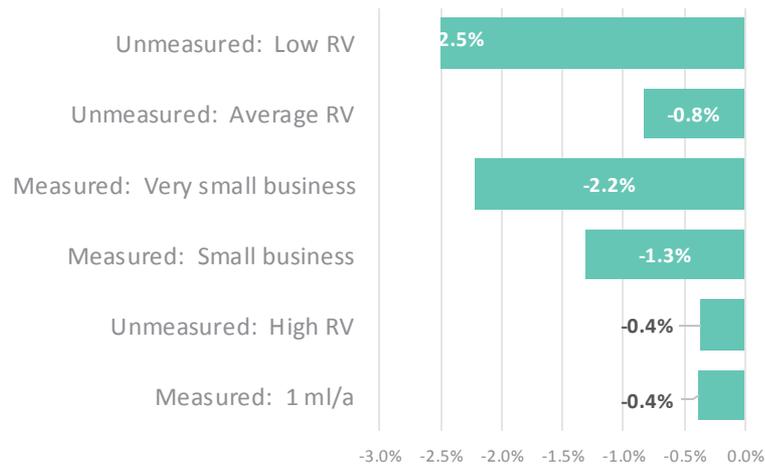
*Impact of PR16 changes*



# SMALL CUSTOMERS WASTE SERVICE

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	Wholesale
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	Retail PR16

Small customers in 5-50 MI/a band

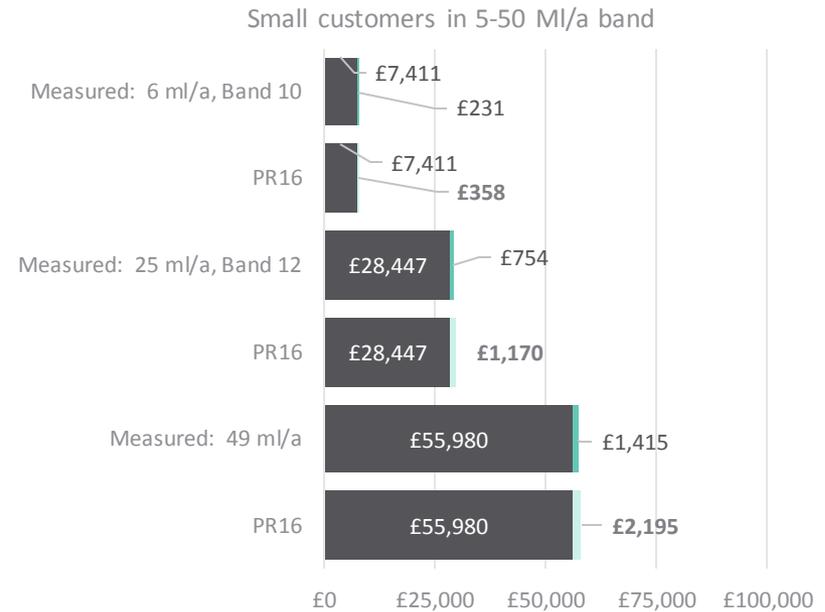
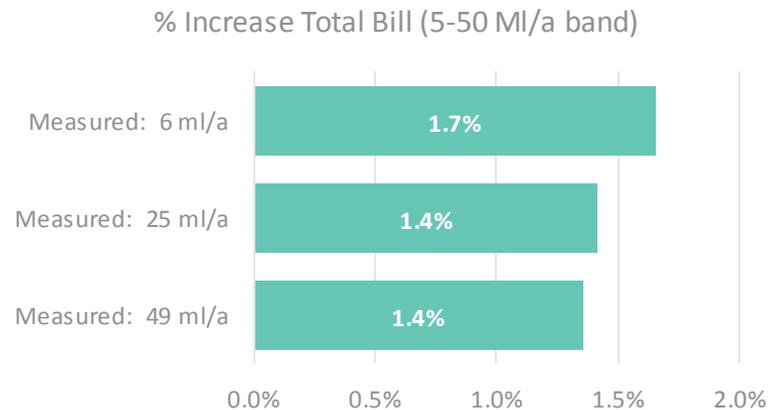


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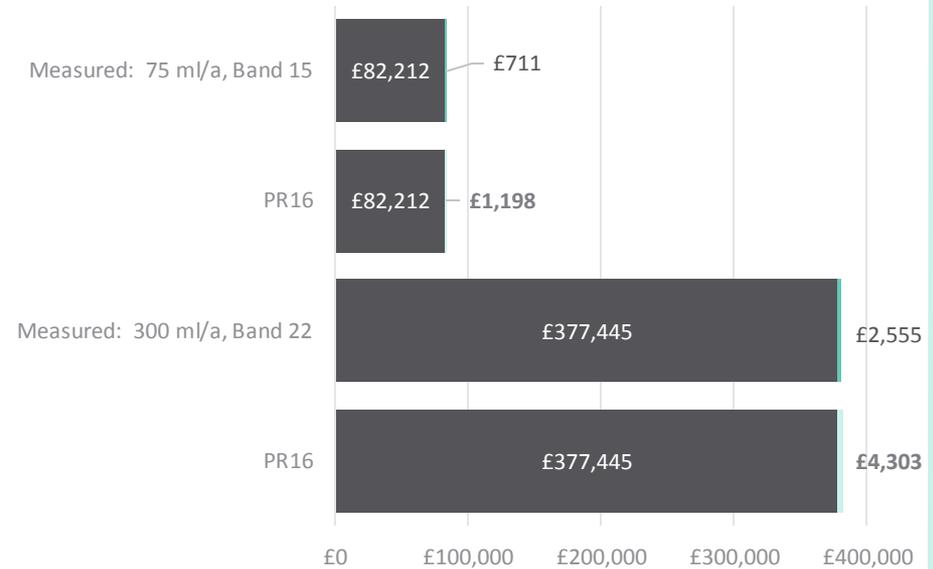


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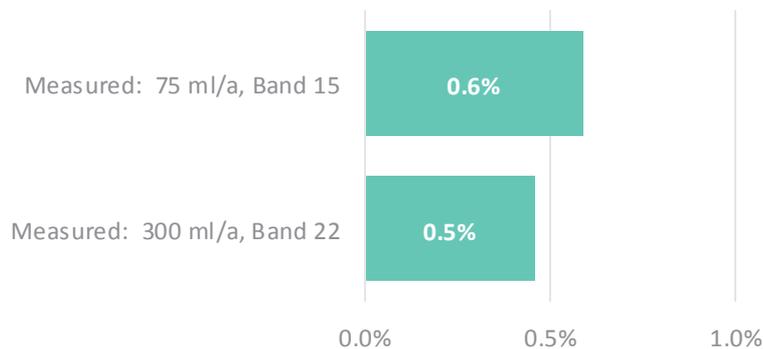
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Small customers in 5-50 Ml/a band



% Increase Total Bill (5-50 Ml/a band)



Wholesale
Retail now
Retail PR16

# EXPLANATORY NOTES

## INDICATIVE CUSTOMERS

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# PR16 TIMELINE

Submission: 20 July 2016  
Draft Determination: 15 September  
Representations: 28 October  
Final Determination: 15 December