

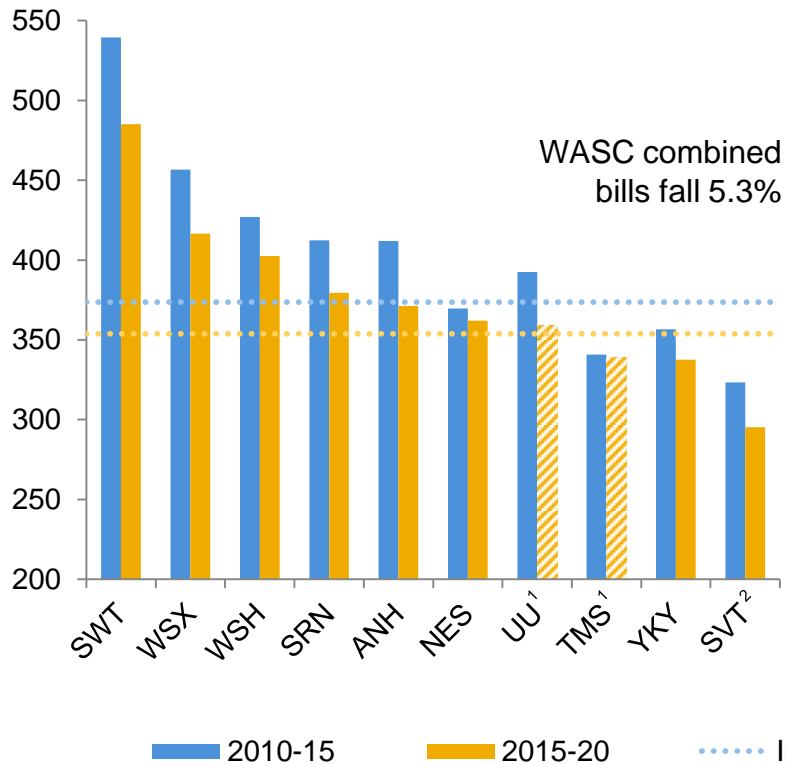


Investor reference pack

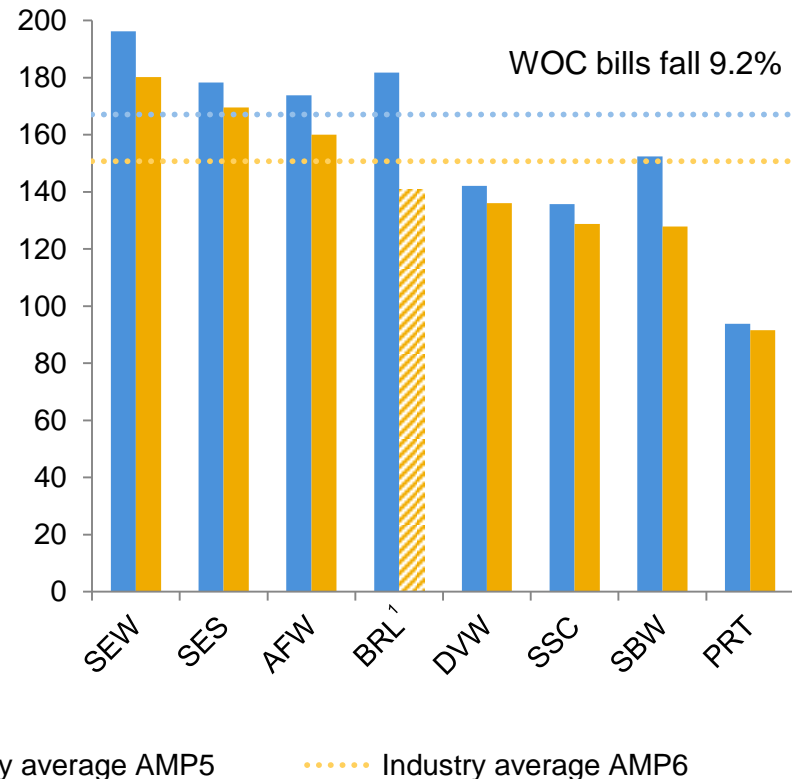
September 2014

# Bill changes

## WASC Average Household Bill Combined Water & Wastewater



## WOC Average Household Bill

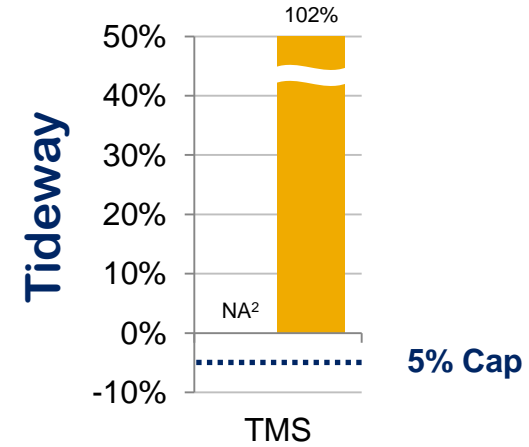
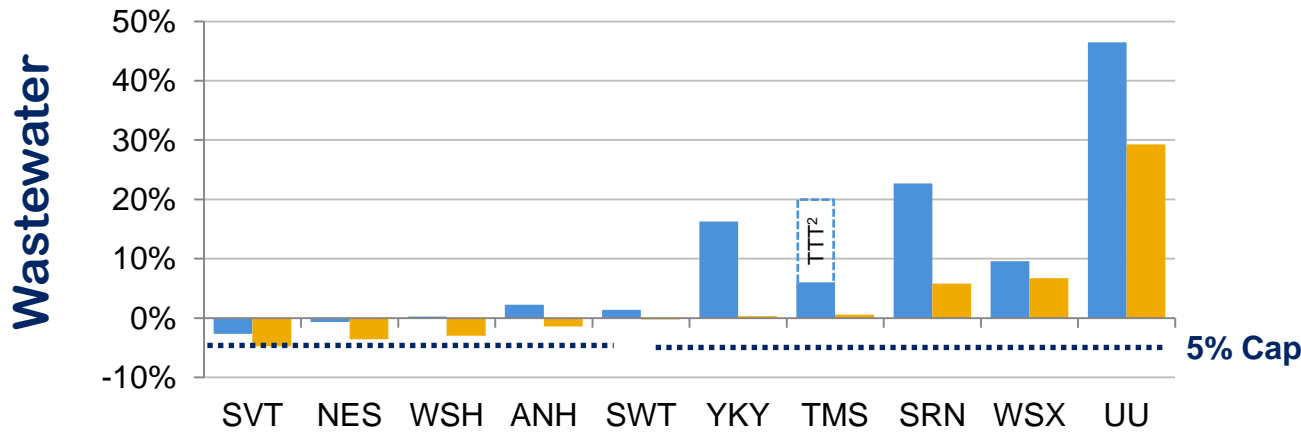
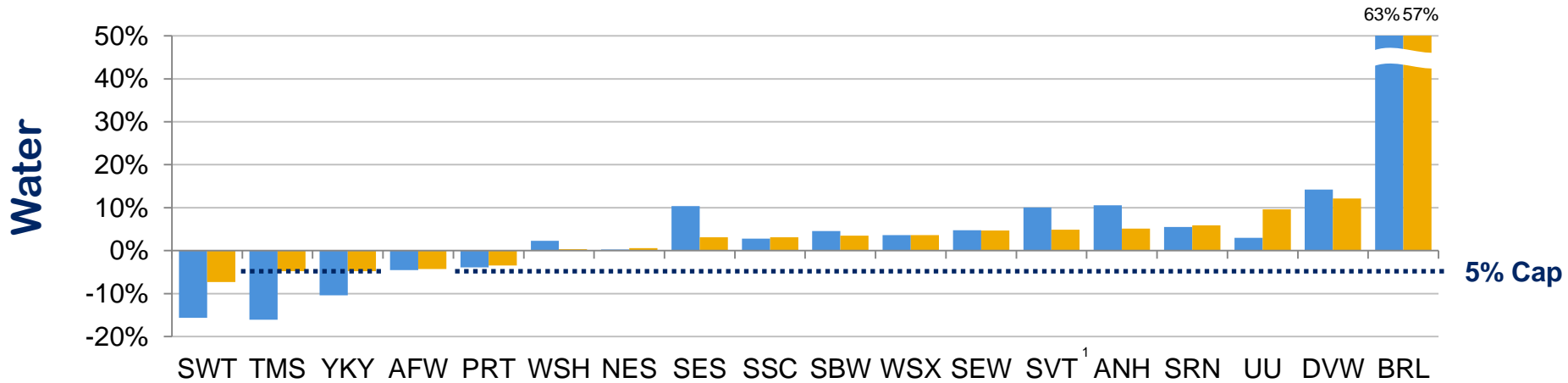


(1) AMP6 bills for United Utilities, Thames Water and Bristol Water face greater uncertainty due to unresolved gaps in wholesale totex.

(2) AMP6 bills for Severn Trent are inclusive of the EVA "core resilience" scheme. Excluding this, bills would be £8 lower.

Note: Excludes indexation of wholesale revenues.

# Material wholesale cost gaps at only a few companies

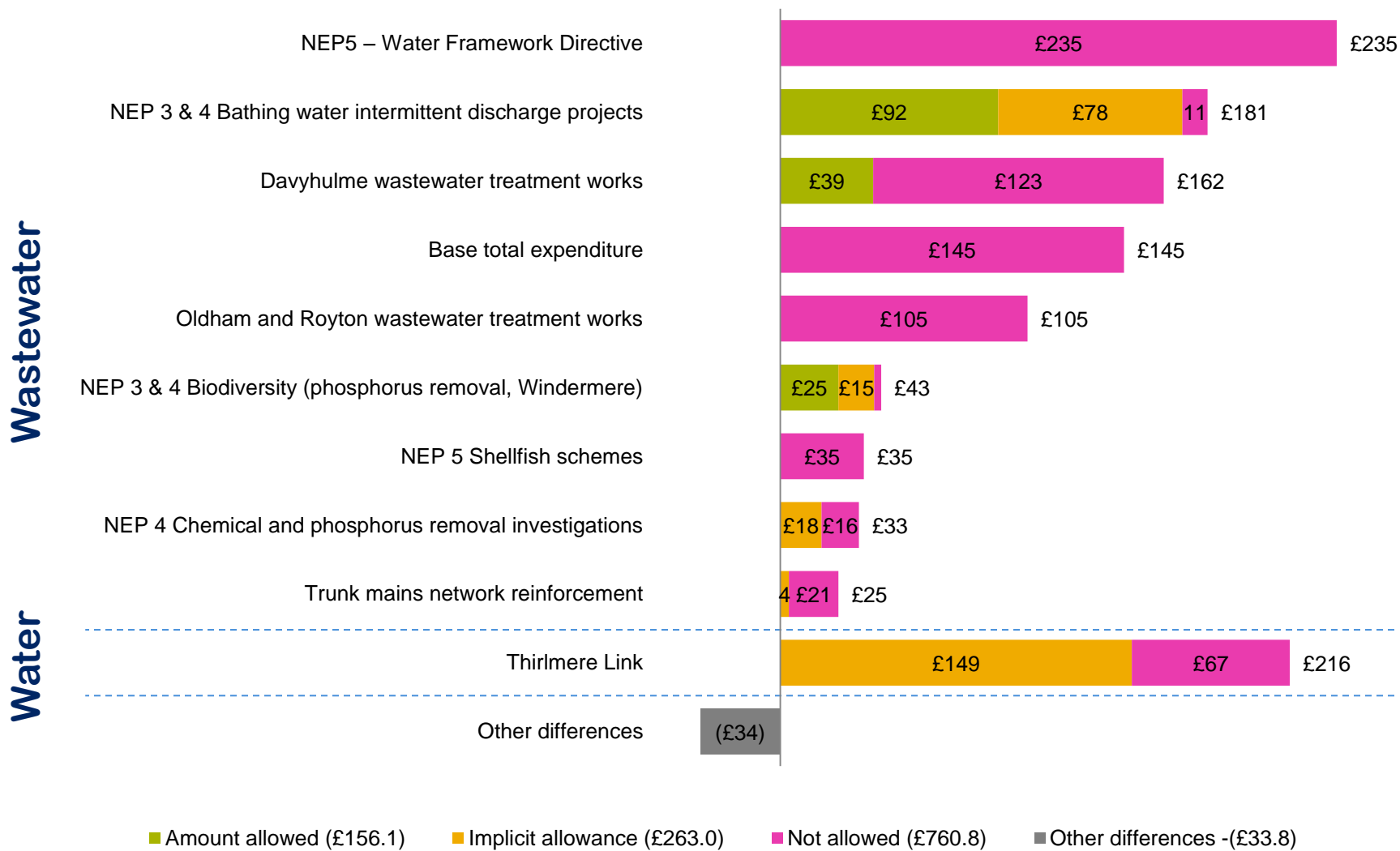


■ Gap at Risk Based Review    ■ Gap at Draft Determinations

(1) Assumes costs of EVA “core resilience” scheme are allowed.

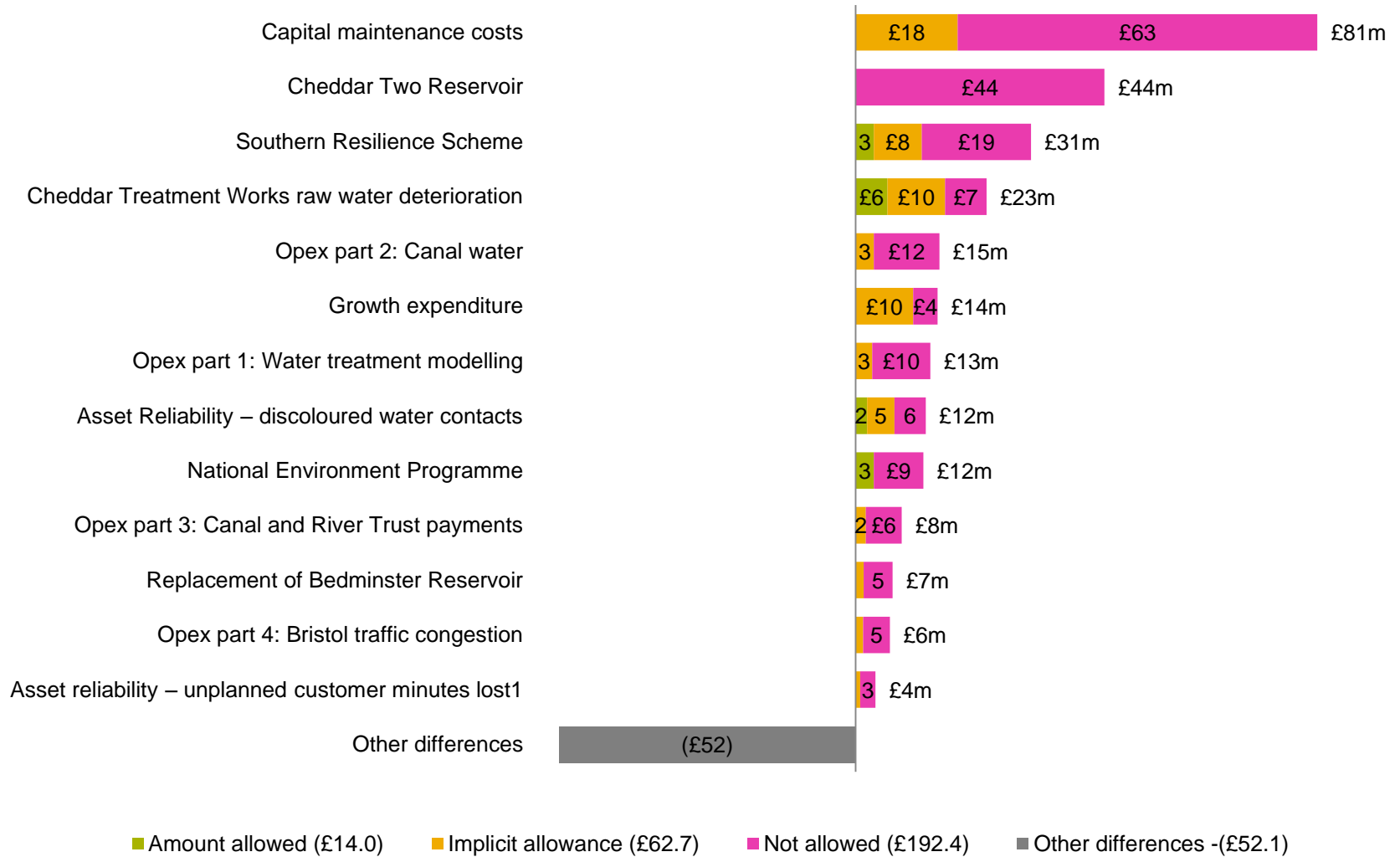
(2) Thames Tideway Tunnel (a separate control within Thames Water) received no allowance at the RBR, against a plan of £508m.

# Wholesale costs: understanding the UU totex gap



# Wholesale costs: understanding the Bristol totex gap

Water



# Wholesale costs: understanding the Thames totex gap

Wastewater



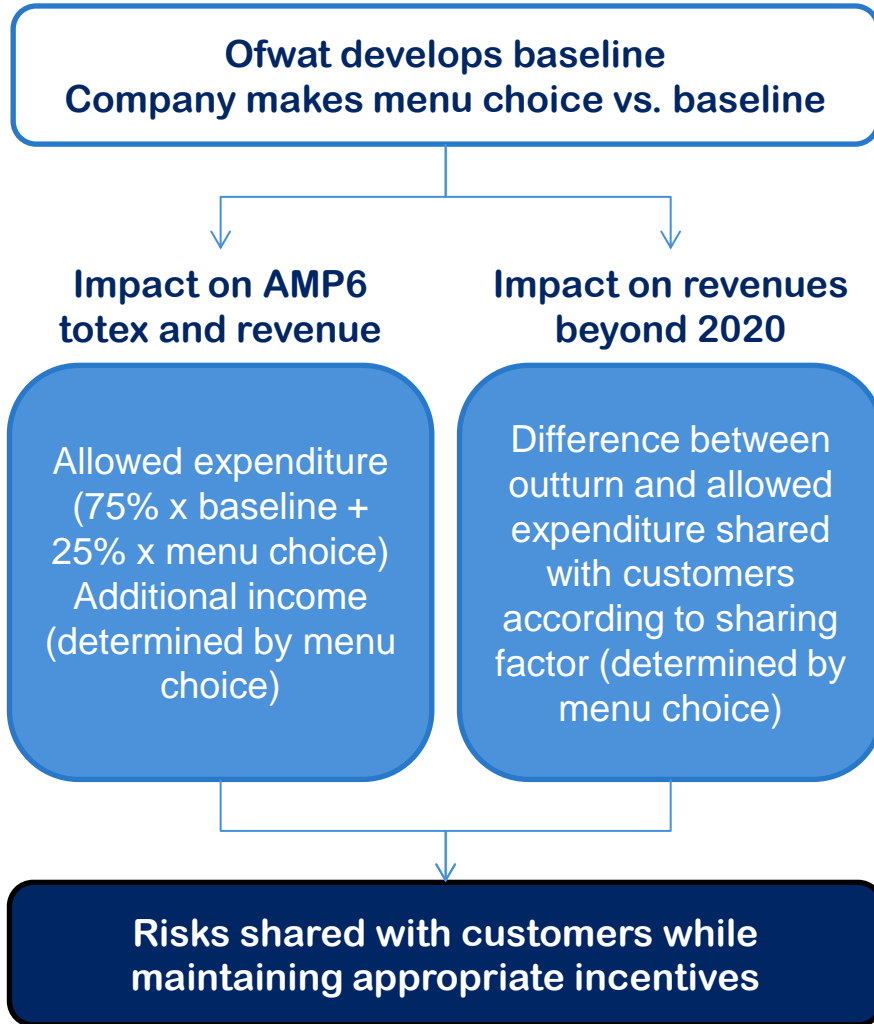
Tideway



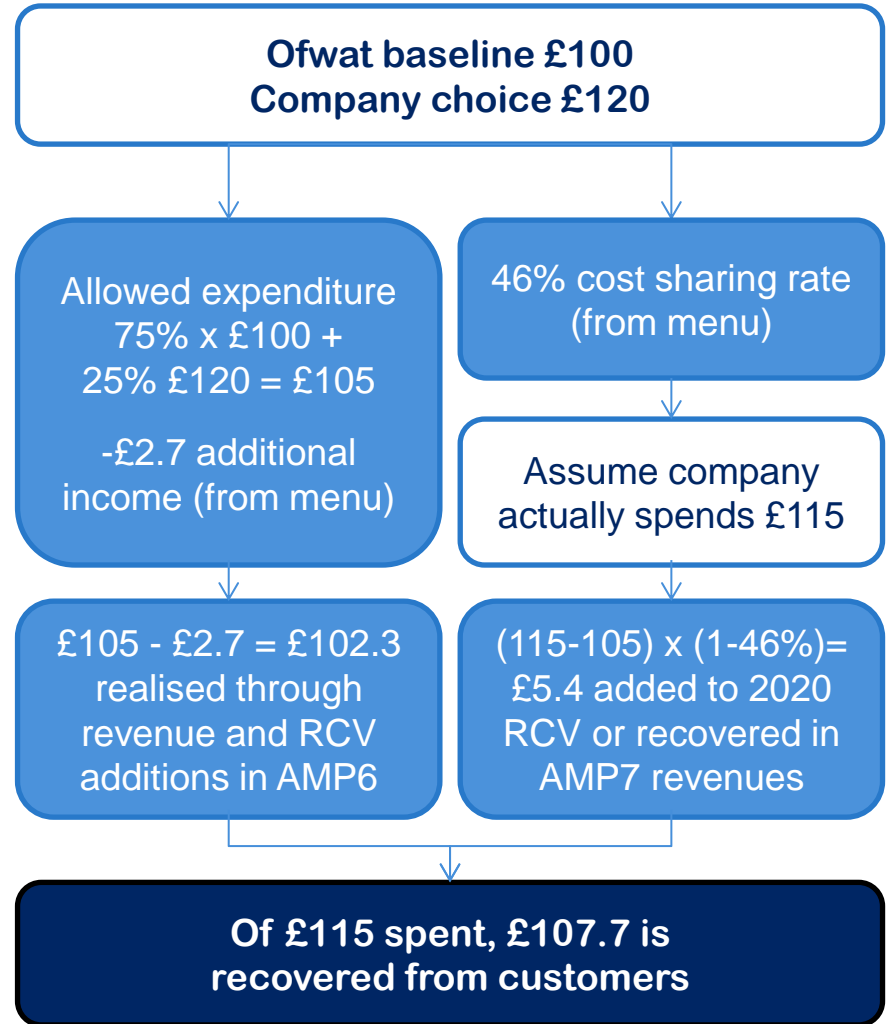
■ Amount allowed (£715.3)  
 ■ Implicit allowance (£244.3)  
 ■ Not allowed (£452.7)  
 ■ Other differences -(£506.0)

# Menus mitigate risk

## Methodology



## Example



Note: See appendix slide for draft menu.

# Draft menu for non-enhanced companies

Company menu choice	80	85	90	95	100	105	110	115	120	125	130
Cost sharing rate	54%	53%	52%	51%	50%	49%	48%	47%	46%	45%	44%
Allowed expenditure	95.00	96.25	97.50	98.75	100.00	101.25	102.50	103.75	105.00	106.25	107.50
Additional income	2.30	1.76	1.20	0.61	0.00	-0.64	-1.30	-1.99	-2.70	-3.44	-4.20
Actual expenditure	Reward/penalty										
70	15.8	15.7	15.5	15.3	15.0	14.7	14.3	13.9	13.4	12.9	12.3
80	10.4	10.4	10.3	10.2	10.0	9.8	9.5	9.2	8.8	8.4	7.9
85	7.7	7.7	7.7	7.6	7.5	7.3	7.1	6.8	6.5	6.1	5.7
90	5.0	5.1	5.1	5.1	5.0	4.9	4.7	4.5	4.2	3.9	3.5
95	2.3	2.4	2.5	2.5	2.5	2.4	2.3	2.1	1.9	1.6	1.3
100	-0.4	-0.2	-0.1	0.0	0.0	0.0	-0.1	-0.2	-0.4	-0.6	-0.9
105	-3.1	-2.9	-2.7	-2.6	-2.5	-2.5	-2.5	-2.6	-2.7	-2.9	-3.1
110	-5.8	-5.5	-5.3	-5.1	-5.0	-4.9	-4.9	-4.9	-5.0	-5.1	-5.3
115	-8.5	-8.2	-7.9	-7.7	-7.5	-7.4	-7.3	-7.3	-7.3	-7.4	-7.5
120	-11.2	-10.8	-10.5	-10.2	-10.0	-9.8	-9.7	-9.6	-9.6	-9.6	-9.7
125	-13.9	-13.5	-13.1	-12.8	-12.5	-12.3	-12.1	-12.0	-11.9	-11.9	-11.9
130	-16.6	-16.1	-15.7	-15.3	-15.0	-14.7	-14.5	-14.3	-14.2	-14.1	-14.1
140	-22.0	-21.4	-20.9	-20.4	-20.0	-19.6	-19.3	-19.0	-18.8	-18.6	-18.5

Source: Draft Determinations, technical appendix A3 (wholesale water and wastewater).

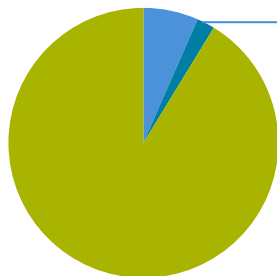


# 2010-15 Performance: shortfalling

## Southern

**Water infrastructure (£11.3m)**

Supply interruptions – deteriorating



**Wastewater infrastructure (£3.7m)**  
Internal flooding (other causes) – deteriorating

**Wastewater non-infrastructure (£156.7m)**

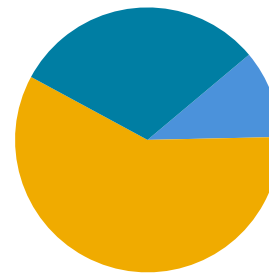
Sewage treatment non-compliance – deteriorating

## Severn Trent

**Wastewater infrastructure (£28.8m)**

Pollution incidents – marginal

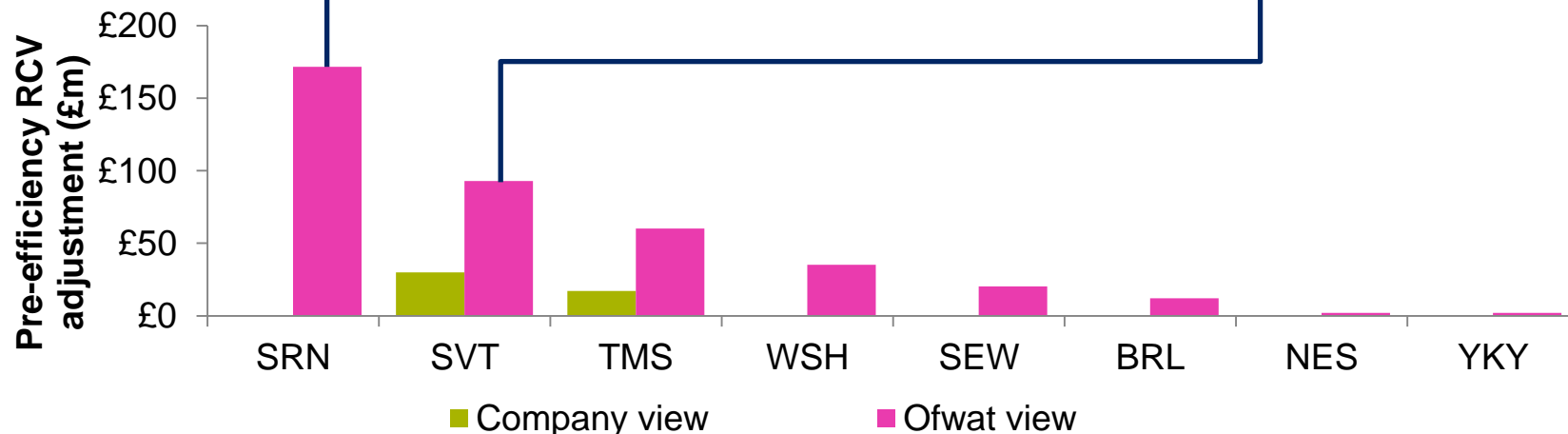
Sewer blockages – marginal



**Water infrastructure (£10.0m)**  
Supply interruptions – marginal

**Water non-infrastructure (£54.1m)**

Coliforms non-compliance – marginal



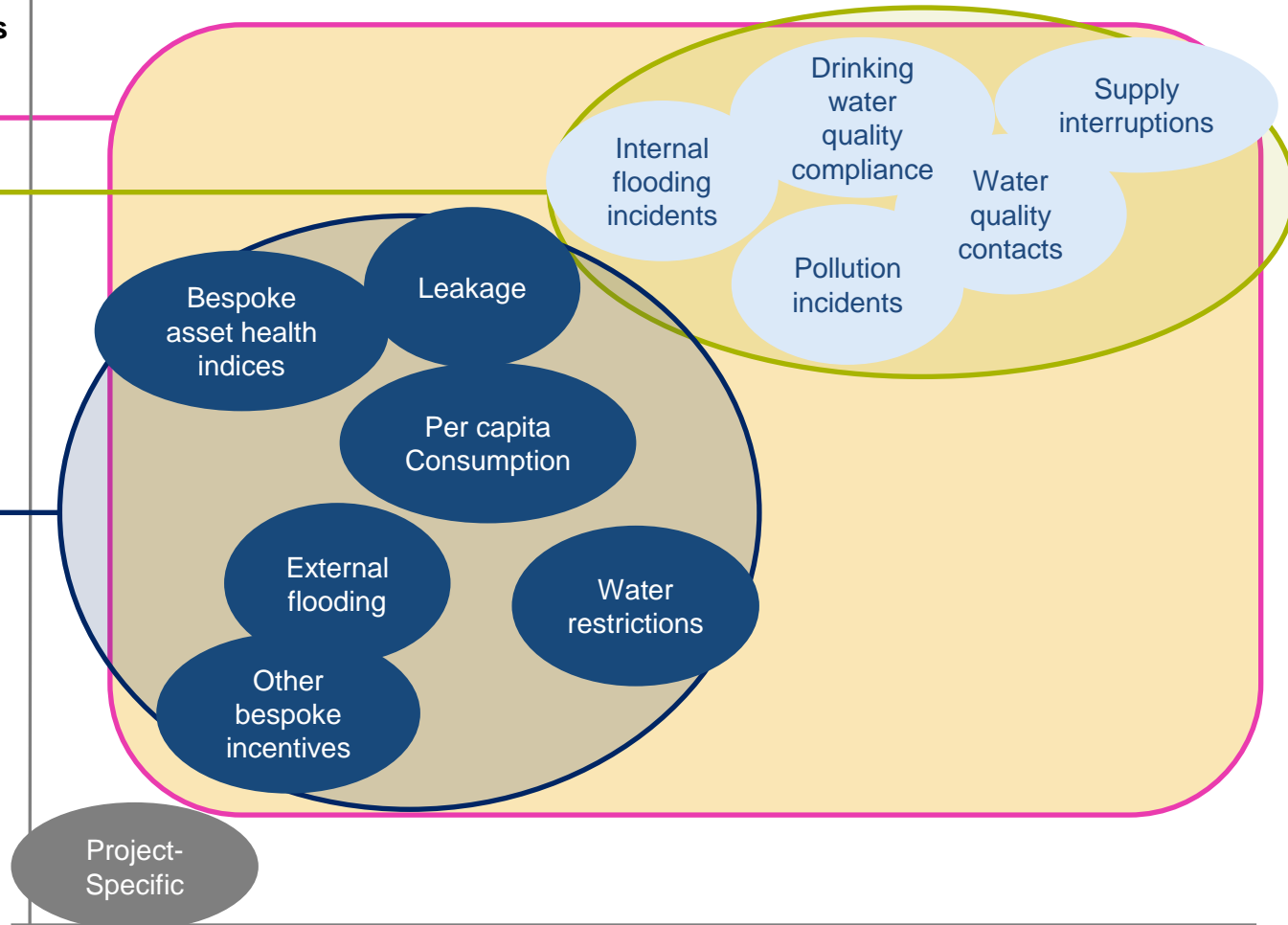
# Outcomes: global interventions

Coverage across companies

Total ODIs capped at 2% of RoRE (both upside and downside)

High coverage/comparability: base rewards on upper quartile

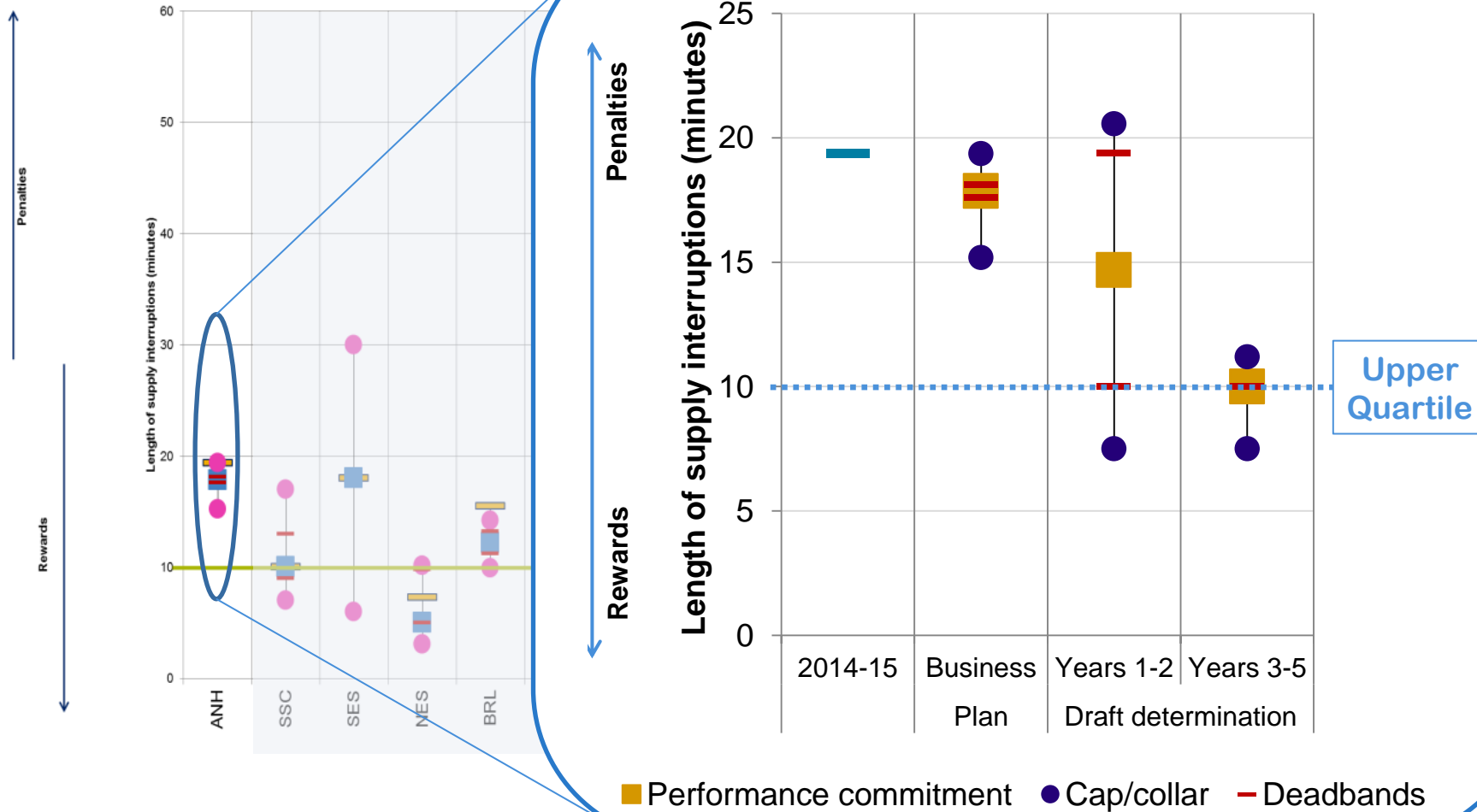
Bespoke incentives: global check and map to willingness to pay



Comparability of Outcomes

# Outcomes: high coverage/comparability example

Supply Interruptions Graph showing company 2014-15 forecast and 2019-20 targets with associated cap, collar and



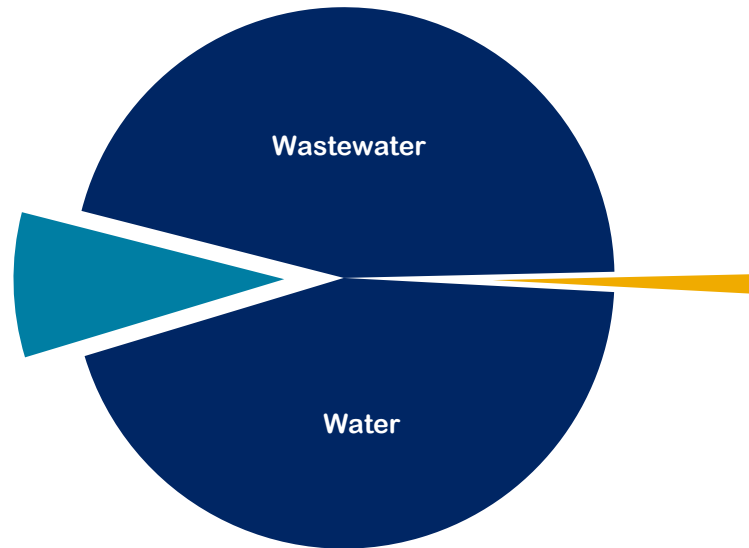
## Household

Allowed revenue based on average cost to serve plus a 1% margin

Companies with costs above the ACTS get a three-year glidepath

No automatic link to RPI

Price controls by total expenditure



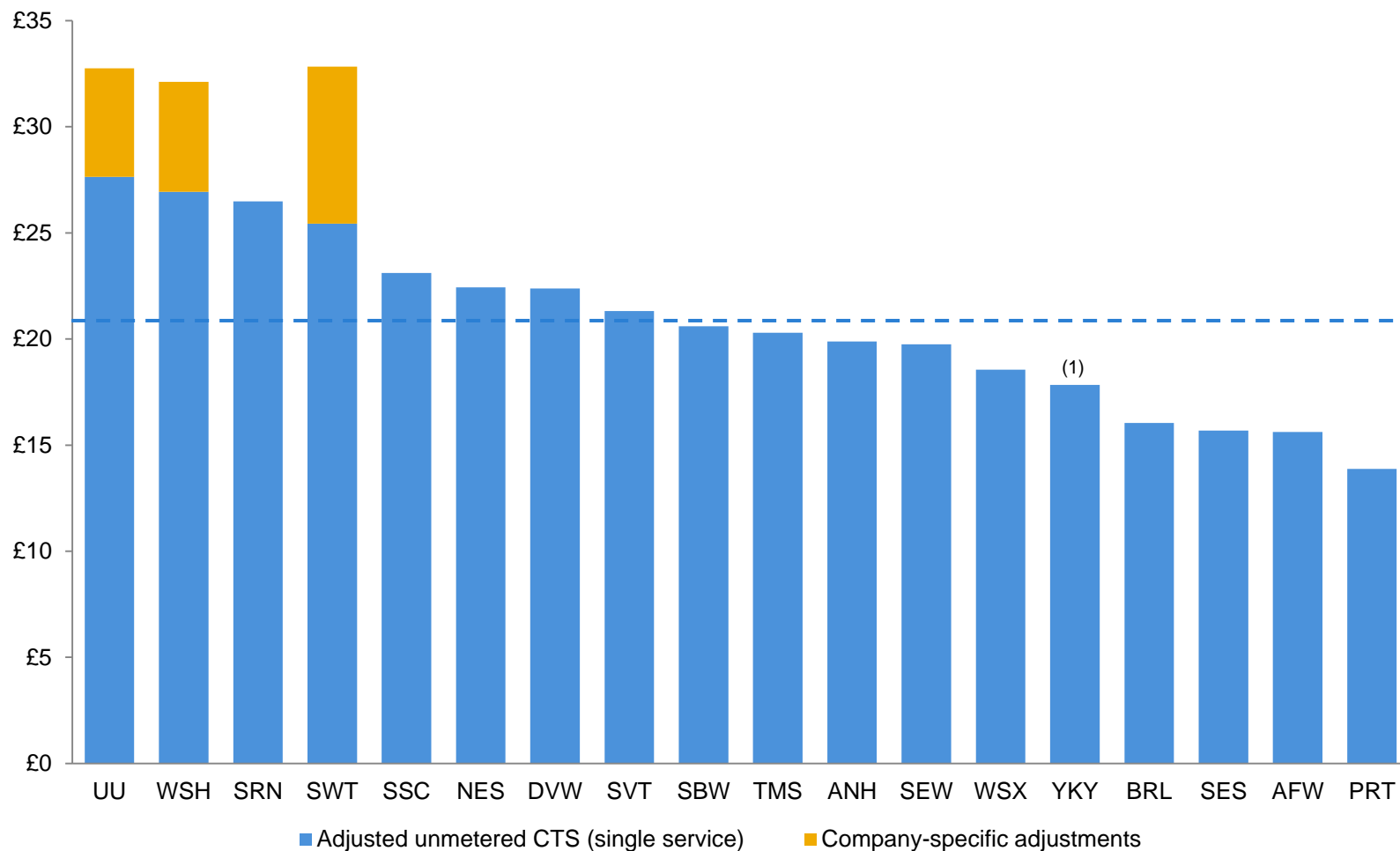
## Non-Household

All customers in England can choose their supplier from 2017

Potential for future deregulation

Note: Total Expenditure for wholesale water and wastewater controls, operating expenditure plus depreciation for retail controls.

# Average cost to serve challenge



Note: Cost to serve per unmetered single-service customer

(1) Yorkshire was allowed an adjustment for input price pressure at draft determinations, which is not shown here as it does not affect the industry ACTS.

# Company-specific uplifts: costs

“To justify a company-specific uplift in the WACC, companies will need to demonstrate both that they face a higher cost to raising finance and that there is an offsetting benefit to customers.”<sup>1</sup>

## Borrowing cost difference: Small WOC vs WASC

	WASC-like capital structure (mostly bond)	Like for Like	Actual financing mix (not considered)
Embedded cost of debt	Bond +30bps	Bond +30bps Artesian loans +26bps <sup>2</sup> Bank +20 to +40bps	Bond +30bps (11%) Artesian loans +26bps <sup>2</sup> (80%) Bank -92bps (9%)
New cost of debt	Bond +30bps	Bond +30bps Bank +20 to +40bps	Bank -135bps (100%)
<b>Overall cost of debt (75% embedded)</b>	<b>+30bps</b>	<b>+20 to +40bps</b>	<b>-22bps</b>

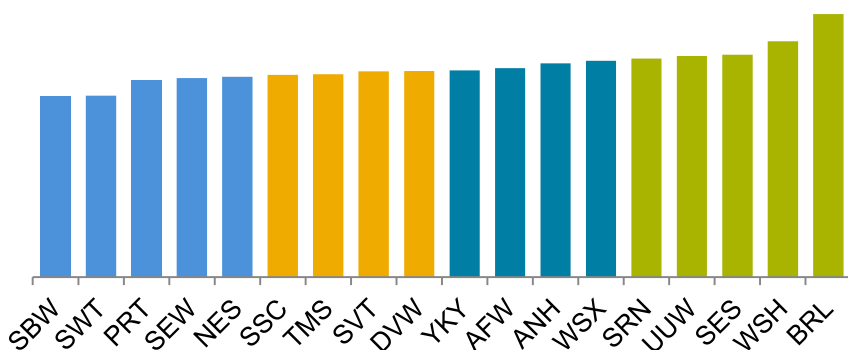
Source: PWC analysis.

(1) Ofwat (2014), 'Setting price controls for 2015-20 – risk and reward guidance'

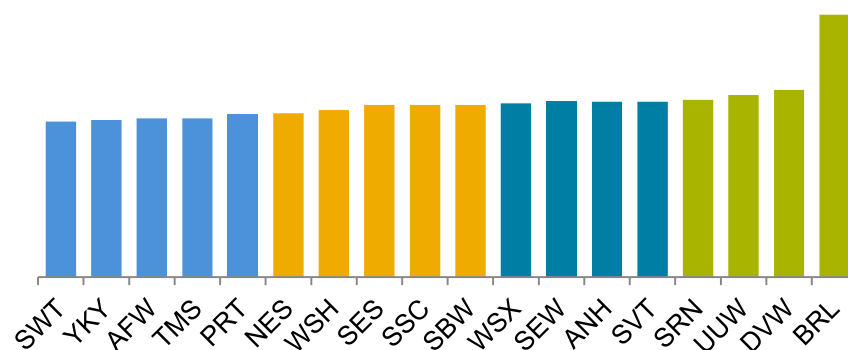
(2) Cost of Artesian loans compared to equivalent WASC bond issues.

# Company-specific uplifts: gross and net benefits

## Historical totex efficiency



## PR14 forecast totex efficiency



Source: Ofwat calculation of historical water efficiency scores based on 5 years of historical costs and on assessment of PR14 business plans.

Impact (30-yr NPV)	BRL	DVW	PRT	SBW	SES	SSC
Customer benefits from wholesale cost modelling	-£6m to -£3m	-£5m to -£2m	£3m to £6m	£4m to £7m	-£4m to -£2m	£0m to £0m
Increased financing cost	-£12m	-£3m	-£3m	-£4m	-£6m	-£9m
Net benefits	-£18m to -£15m	-£8m to -£5m	£0m to £3m	£0m to £3m	-£10m to -£8m	-£9m to -£9m

# Notional financeability: interventions and additional assurance

	ANH		SVT		SRN		TMS		UU		WSX		YKY	
	Plan	DD	Plan	DD	Plan	DD	Plan	DD	Plan	DD	Plan	DD	Plan	DD
Gearing	64.7%	62.2%	62.9%	63%	62.6%	61.9%	64.8%	64.4%	60.8%	59.9%	65.0%	63.5%	60.0%	60.8%
ACICR	1.41	1.46	1.60	1.60	1.46	1.49	1.31	1.40	1.63	1.61	1.74	1.76	1.71	1.64
FFO/debt	8.4%	8.7%	9.9%	9.9%	11.1%	11.3%	8%	8.6%	10.2%	10.2%	10.4%	10.5%	9.9%	8.7%

Require further assurance on financeability

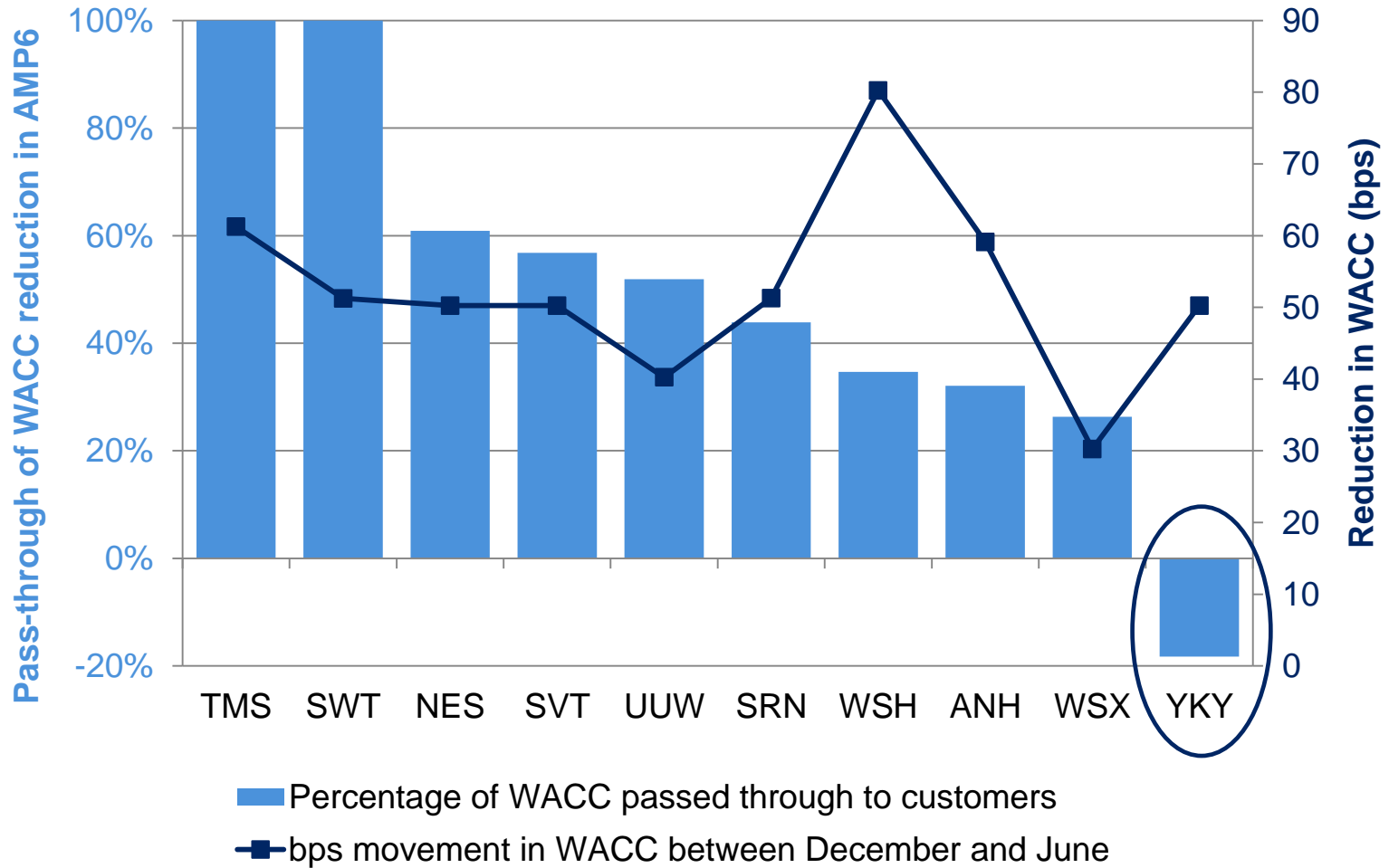
Intervened to change PAYG ratio

	BRL		DVW		PRT		SBW		SEW		SSC		SES	
	Plan	DD	Plan	DD	Plan	DD	Plan	DD	Plan	DD	Plan	DD	Plan	DD
Gearing	64.3%	64.7%	67.9%	66.3%	62.9%	62.1%	59.5%	60.9%	63.5%	63.8%	66.7%	67%	64.4%	64.5%
ACICR	2.11	1.85	1.62	1.53	1.40	1.33	2.24	1.88	1.71	1.71	1.42	1.46	1.35	1.22
FFO/debt	14.6%	13.0%	11.9%	11.1%	8.6%	8.1%	13.1%	11.2%	9.0%	8.7%	12.4%	12.3%	12.3%	11.6%

Require assurance on data quality



# Example of use of PAYG



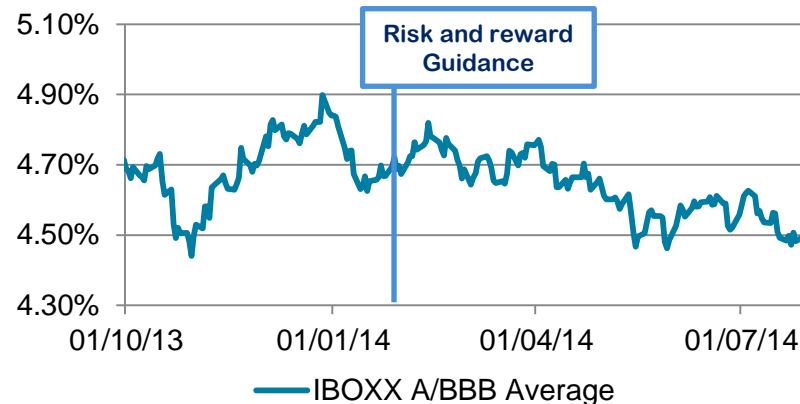
# From draft to final determinations

Draft determinations are open for consultation until **3 October**

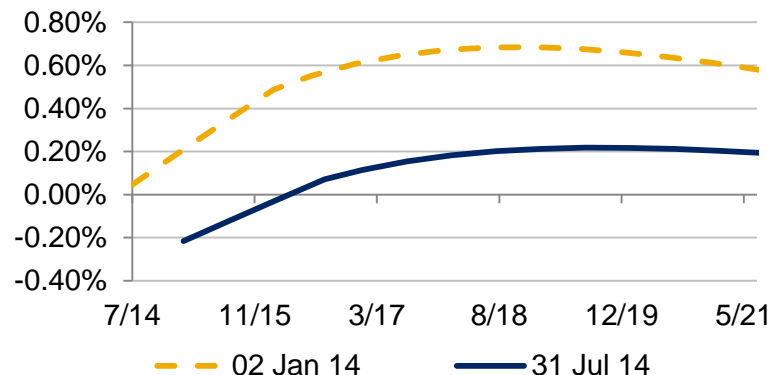
Final determinations on **12 December** will reflect company challenges, as well as our challenges on behalf of customers

The **final determination cost of capital** will reflect current market evidence and regulatory precedent (including the NIE and ED-1 determinations)

### iBoxx nominal cost of debt



### Market-implied real risk-free rate



10 year real forward rates implied by index-linked gilt yield curve.  
Ofwat calculation based on Bank of England data.

# January guidance on appointee WACC

WACC inputs	Ofwat (point)	Ofwat range
<b>Total equity market return</b>	<b>6.75%</b>	<b>6.25% to 6.75%</b>
Real risk-free rate	1.25%	0.75% to 1.25%
Equity market risk premium	5.5%	5.5%
Gearing (Net Debt:RCV)	62.5%	60% to 62.5%
<b>Asset beta</b>	<b>0.3</b>	<b>0.3</b>
Equity beta	0.8	0.75 to 0.80
<b>Cost of equity (post-tax)</b>	<b>5.65%</b>	<b>4.9% to 5.7%</b>
Ratio of embedded to new debt	75%:25%	75%:25%
Cost of new debt	2.65%	2.6% to 2.8%
Cost of embedded debt	2.65%	2.6% to 2.8%
Allowance for debt fees	0.1%	0.1%
<b>Overall cost of debt</b>	<b>2.75%</b>	<b>2.7% to 2.9%</b>
<b>Appointee (vanilla) WACC</b>	<b>3.85%</b>	<b>3.6% to 3.9%</b>

Source: Summarised from Table 8 of Risk and Reward Guidance (January 2014).