

Financial Model and Rulebook Webinar

July 2017

ofwat

I want...

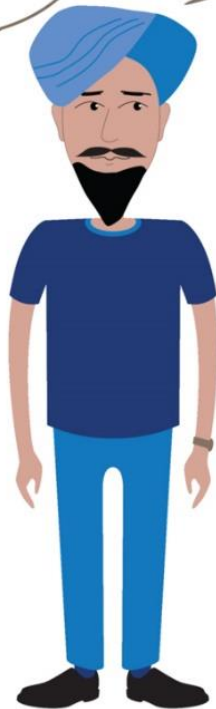
...an app
for that



...lower bills,
affordable
for all



...help 24/7

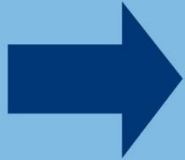


...better
customer
service



...a cleaner
environment





Aim

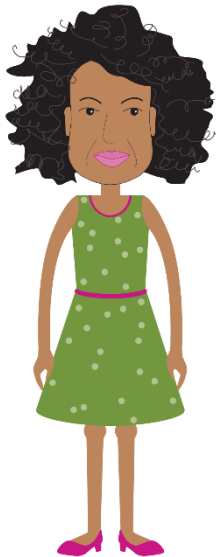
To explain key elements of financial model and rulebook to assist your response

To take clarification questions – not for views on methodology (this is for your response)

We will provide stops in the presentation to allow questions

Structure

1. Role of financial model in PR19
2. Known limitations
3. Indexation and price base in the model
4. The financial model rulebook
5. Notionalisation and override of inputs
6. Calculation of Bioresources average revenue per tonne of dry solid
7. RoRE analysis



We would welcome feedback on the draft of the PR19 financial model and rulebook.

Please send any feedback to the following email address by 30 August 2017.

water2020@ofwat.gsi.gov.uk

Role of financial model in PR19

We have developed a draft version of the financial model which we will use to assess plans and to aid us in making our determinations.

We will expect companies to provide a completed version of the model when they submit their business plans.

Companies will be expected to use the functionality in the financial model to insert their proposed assumptions and show the likely bill profile.

We expect companies to use the specific RoRE functionality in the financial model to provide the upside and downside scenarios based on high and low probability of events occurring.

Companies should ensure consistency between their business plan tables, the supporting feeder models and the financial model.

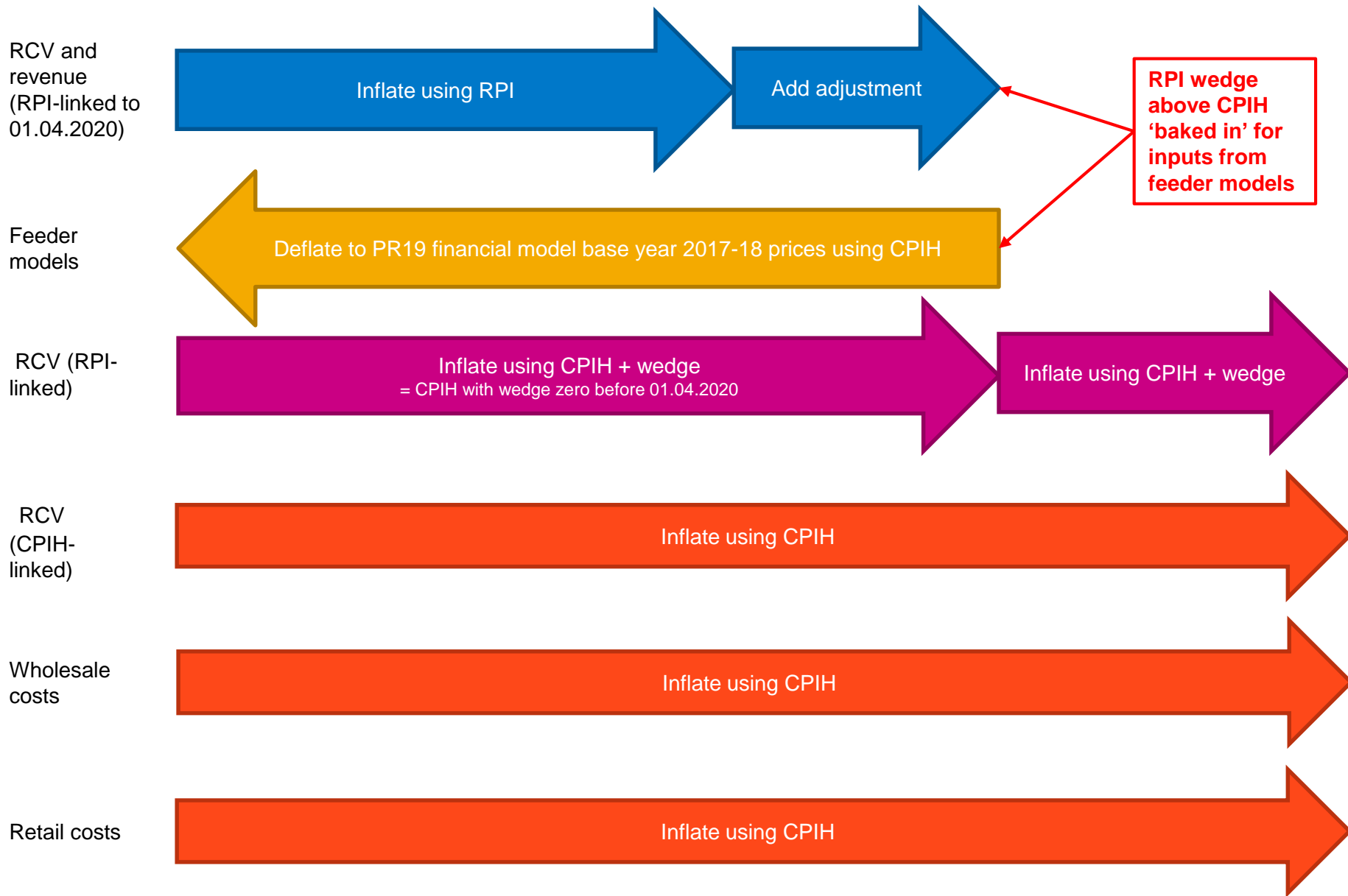
Known limitations with draft model

Issue	Details
Tax reconciliation	There have been amendments to the totex calculations and the base inputs have been changed. As a result the tax reconciliation logic needs amending with respect to the addition of these new inputs. This is still pending.
Other income and adjustments	Other income headings to be aligned with PR19 draft data table headings
Tax treatment of post financeability adjustments	The calculation of the tax building block of allowed revenue needs adjusting to reflect the tax treatment outlined in the PR14 reconciliation rulebook and related documents
Depreciation and asset changes amendments with the totex changes	Fixed asset depreciation and balance sheet headings to be aligned with revised totex headings

Indexation

- CPIH is the general indexation measure within the model
- The general price base is 2017/18 financial year average prices (CPIH deflated)
- Most inputs will come into the model in this price base. A few enter the model in a nominal price base.
- RPI linked RCV indexed by CPIH + wedge
- 'Real' WACC for RPI linked RCV derived by deflating nominal WACC by long term RPI

Indexation



ABCD	E	F	G	H	I	L	M
1	Retail_Residential		Notionalised	No sensi case			
2	Model period ending	-	Checks			31 Mar 21	31 Mar 22
3	Timeline label	-	Track chgs			Forecast	Forecast
4	Financial year ending	5	Alerts			2021	2022
5	Model column counter	Constant	Unit	Total		3	4
128							
129	Total residential revenue						
130	Measured residential retail service revenue - real	-	£m	145.31	-	25.20	26.97
131	Unmeasured residential retail service revenue - real	-	£m	94.87	-	20.02	19.57
133	CPI(H): Fin year average - inflate from base year 2017-18 average	-	%	-	-	108.62%	112.31%
135	Measured residential retail service revenue - nominal		£m	169.63		27.37	30.29
136	Unmeasured residential retail service revenue - nominal		£m	94.87		21.74	21.98
138	Residential retail service revenue - nominal		£m	279.67		49.12	52.26
139							
140	Residential retail service revenue - nominal	-	£m	279.67	-	49.12	52.26
141	Apportioned wholesale charge for Residential retail - nominal	-	£m	2,447.69	-	432.01	463.98
142	Total revenue accrued nominal - Residential	PL & CF	£m	2,727.36		481.13	516.24

- Retail costs enter the model in a 2017/18 FYA (CPIH deflated) price base.
- They are then indexed in the model by forecast CPIH
- These means that retail real and nominal costs are distinct.

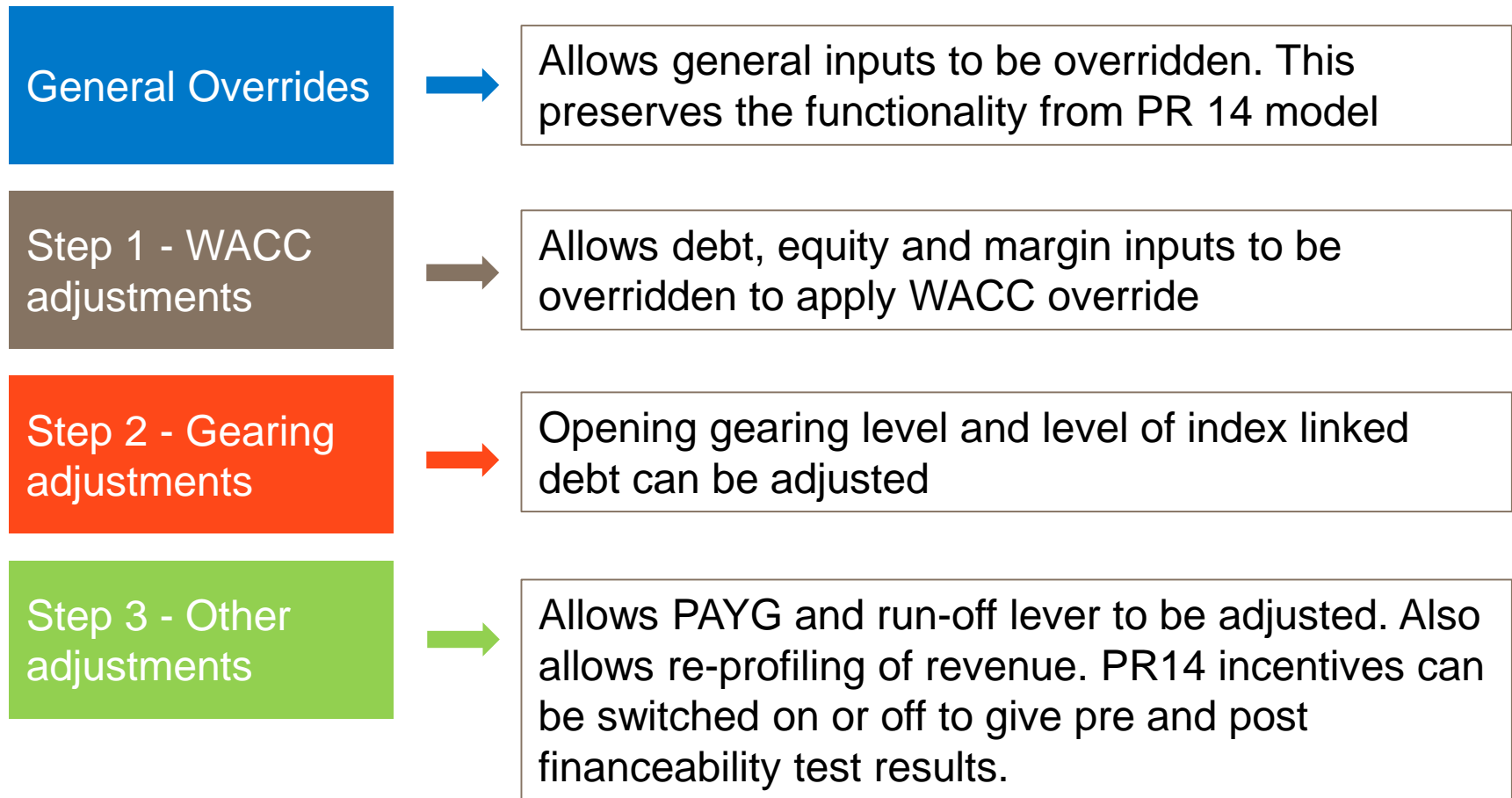
Rulebook

	A	B	C	D	E
1	Rulebook Contents				
2	Description			Model links	
4	KEY				
5	Formatting				
6	Abbreviations				
8	1: MODEL OVERVIEW				
10	2: MODEL TIMEFRAME				
12	3: WHOLESALE OVERVIEW				
14	4: RETAIL OVERVIEW				
16	5: NOTIONALISATION & OVERRIDES				
17	5a Notionalisation & overrides overview				
18	5b Override on inputs - Step 0				
19	5c Notionalisation overview				
20	5d Notionalisation inputs adjustments - Step 1				
21	5e Notionalisation target gearing adjustments - Step 2				
22	5f Other adjustments - Step 3				
24	6: INDEXATION				
25	6a CPI(H): Fin year average - inflate from base year 2017/2018 average			CPI(H) INDEXATION	
26	6b CPI(H): Fin year average - percentage increase				
27	6c CPI(H): Basket year - cumulative % increase from base year basket value (November)				
28	6d RPI: Fin year average - percentage increase				
29	6e CPI(H) + RPI wedge 2017-18 active			CPI(H) + RPI WEDGE INDEXATION	
31	7: APPOINTEE TOTAL ALLOWED REVENUES				
32	7a Appointee Total Revenues			Appointee Total Revenues	
33	7b Water allowed revenues			Water - Allowed Revenues - real	
34	7c Residential retail service revenue			Residential retail service revenue - real	
35	7d Business retail service revenue			Business retail service revenue - real	
36	7e RCV			REGULATORY CAPITAL VALUE - CPI(H)	
37	7f Post-tax return on regulatory capital value			Post-tax return on regulatory capital value - WR	
39	8: OPEX - APPOINTEE				
40	8a Opex - Appointee			Opex - Appointee	
41	8b Retail service opex - Residential			Retail service opex nominal - Residential POS	
42	8c Totex: Wholesale			Totex - net of grants and contributions - WR (post sensi adj)	

The draft rulebook is not a policy statement. Users should refer to the "The PR19 methodology consultation document" for information on proposed policy.

Users can click through from the rulebook to individual calculations.

Notionalisation and overrides



Steps are turned on and off with switches and can be operated independently of each other.

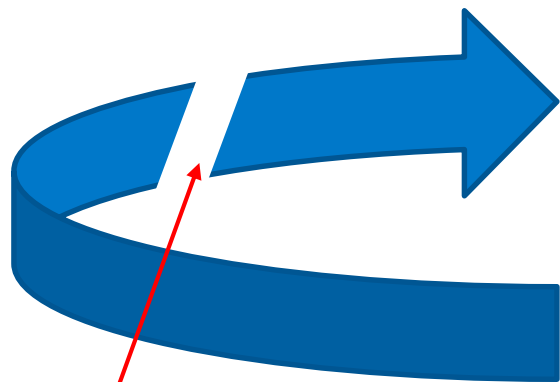
Bio resources average revenue per TDS

Bio resources Revenue / TDS calculation

ABCD	E	F	G	H	I	K	L	M	N	O	P
Summary_Calc		Notionalised	No sensi case								
	Model period ending	-	Checks			31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23	31 Mar 24	31 Mar 25
	Timeline label	-	Track chgs			Pre-Fcst	Forecast	Forecast	Forecast	Forecast	Forecast
	Financial year ending	5	Alerts			2020	2021	2022	2023	2024	2025
	Model column counter	Constant	Unit	Total		2	3	4	5	6	7
	PV discount factor	-	factor	-	-	1.0000	1.0000	0.9653	0.9317	0.8992	0.8680
1	Bio resources - Allowed Revenues - real	-	£m	255.66	-	-	54.28	54.45	52.50	49.91	44.52
	Discounted revenue real	-	£m	239.28	-	-	54.28	52.56	48.92	44.88	38.64
	Discounted revenue real	-	£m	239.28	-	-	54.28	52.56	48.92	44.88	38.64
2	NPV for revenue as per TDS - BR - real	239.28	£m								
	Bio resources - TDS revenue average - real	243.85	£/tonne								
	Units in a million	1,000,000	unit								
	Tonnes per dry solid - BR	-	Tonnes	-	-	-	200,000	210,000	220,500	231,525	190,000
	Bio resources - TDS Revenues - real	-	£m	256.54	-	-	48.77	51.21	53.77	56.46	46.33
	PV discount factor	-	factor	-	-	1.0000	1.0000	0.9653	0.9317	0.8992	0.8680
	Tonnes per dry solid - BR	-	Tonnes	-	-	-	200,000	210,000	220,500	231,525	190,000
3	Discounted TDS	-	Tonnes	981,262	-	-	200,000	202,703	205,442	208,198	164,920
	Discounted TDS	-	Tonnes	981,262	-	-	200,000	202,703	205,442	208,198	164,920
	Total Discounted TDS	981,262	Tonnes								
4	NPV for revenue as per TDS - BR - real	239.28	£m								
	Total Discounted TDS	981,262	Tonnes								
	Units in a million	1,000,000	unit								
	Bio resources - TDS revenue average - real	243.85	£/tonne								

1. Allowed revenue is calculated on a building blocks basis
2. The allowed revenue is discounted to give an NPV value
3. Tonnes of dry solid is discounted to reflect that activity performed later in the period has a lower net present value
4. NPV of allowed revenue divided by the NPV of TDS to give an average revenue per tonne of dry solid. Note that financeability, bills and tax are not recalculated after the average revenue per TDS calculation.

RoRE analysis

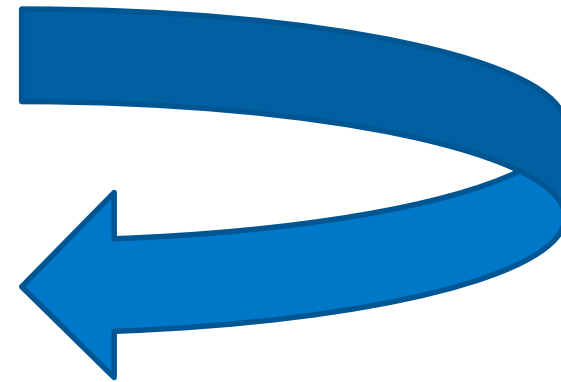


No feedback loop.

RoRE calculations do not feed back into financeability, building block and bill calculations

Model calculates retained earnings on building block basis

RoRE calculations performed in separate worksheet.



RoRE range inputs are separate from the sensitivity analysis inputs.

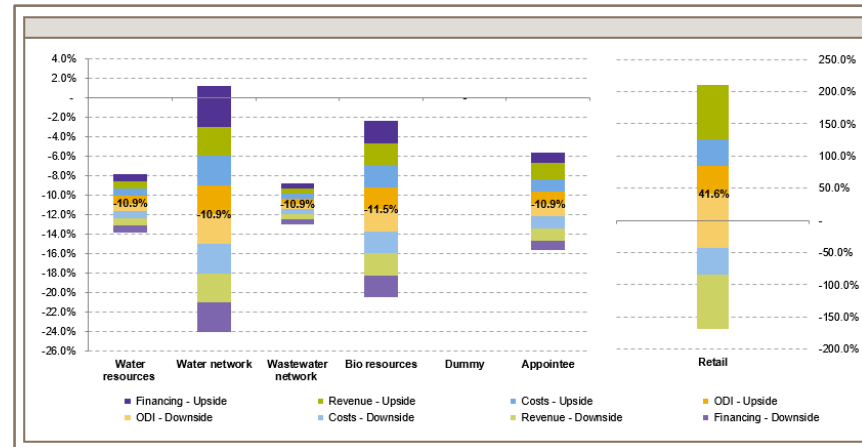
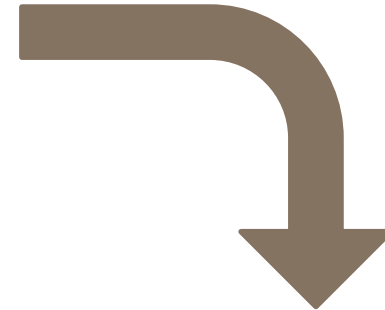
Sensitivity inputs impact on allowed revenue, financeability and bill calcs

RoRE calculations

ABCD	E	F	G	H	I	J	K	L	M
1	RoRE_Calc		Notionalised	No sensi case					
2	Model period ending	-	Checks			31 Mar 19	31 Mar 20	31 Mar 21	31 Mar 22
3	Timeline label	-	Track chgs			Pre-Fcst	Pre-Fcst	Forecast	Forecast
4	Financial year ending	5	Alerts			2019	2020	2021	2022
5	Model column counter			Total		1	2	3	4
87									
88	Average net debt - WR								
89	Required Gearing - active - WR	62.50%	%						
90	Average of RCY - WR	-	£m			944.67	1,946.69	2,014.98	
91	Average net debt - WR		£m	7,040.42		590.42	1,216.68	1,259.36	
92									
93	Regulated equity - WR								
94	Average of RCY - WR	-	£m			944.67	1,946.69	2,014.98	
95	less Average net debt - WR	-	£m	7,040.42		590.42	1,216.68	1,259.36	
96	Forecast period flag	-	flag	5			1	1	
97	Regulated equity - WR		£m	3,870.00			730.01	755.62	
98	Total regulated equity - WR	3,870.00	£m						
99									
100	RoRE (actual) - WR								
101	Retained earnings (building blocks method) - WR								
102	EBIT less current tax charge (building blocks method) - WR	-	£m	175.05				32.75	34.01
103	Interest income /(expense) excl. indexation of index-linked loans - WR	PL & CF	£m	(312.37)				(55.43)	(59.44)
104	Indexation of index-linked loans - WR	PL	£m	(66.90)				(10.91)	(13.62)
105	Movement in deferred tax provision - WR	PL	£m	198.30				2.70	3.36
106	Ordinary Dividend Declared - WR	PL	£m	(235.06)				(42.47)	(44.64)
107	Retained earnings (building blocks method) - WR		£m	(240.99)				(73.36)	(80.33)



ABC	E	F	G	H	I	J	K
1	Sensi		Notionalised	No sensi case			
2	Model period ending	-	Checks			31 Mar 19	31 Mar 20
3	Timeline label	-	Track chgs			Pre-Fcst	Pre-Fcst
4	Financial year ending	5	Alerts			2019	2020
5	Model column counter			Total		1	2
344	WATER RESOURCES						
345							
346	Financing						
347	Financing - RoRE adjustment to net profits - Upside case - WR - real		£m	60.00		5.00	5.00
348	Financing - RoRE adjustment to net profits - Downside case - WR - real		£m	(60.00)		(5.00)	(5.00)
349							
350	Revenue						
351	Revenue - RoRE adjustment to net profits - Upside case - WR - real		£m	120.00		10.00	10.00
352	Revenue - RoRE adjustment to net profits - Downside case - WR - real		£m	(120.00)		(10.00)	(10.00)
353							
354	ODI						
355	ODI - RoRE adjustment to net profits - Upside case - WR - real		£m	180.00		15.00	15.00
356	ODI - RoRE adjustment to net profits - Downside case - WR - real		£m	(180.00)		(15.00)	(15.00)
357							
358	Costs						
359	Costs - RoRE adjustment to net profits - Upside case - WR - real		£m	240.00		20.00	20.00
360	Costs - RoRE adjustment to net profits - Downside case - WR - real		£m	(240.00)		(20.00)	(20.00)
361							
362	Inflation gain / loss						
363	Long term inflation - RoRE adjustment to net profits - Upside case - WR		%			3.00%	3.00%
364	Short term inflation - RoRE adjustment to net profits - Upside case - WR		%			4.00%	4.00%
365	Long term inflation - RoRE adjustment to net profits - Downside case - WR		%			4.00%	4.00%
366	Short term inflation - RoRE adjustment to net profits - Downside case - WR		%			3.00%	3.00%
367							





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