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Appendix 5.1

SEPARATE PRICE CONTROLS ANALYSIS

September 2018

APPENDIX 5.1
SEPARATE PRICE CONTROLS ANALYSIS

Contents

Details of the five price controls 2
Water resources 3
Water network plus 5
Wastewater network plus 7
Bioresources 9
Residential retail revenues 11

APPENDIX 5.1
SEPARATE PRICE CONTROLS ANALYSIS

Details of the five price controls

All the data set out below is extracted from Executive Summary, Financial Model. We have added the 2019/20 PR14 FD data to show the revenue reductions in 2020/21.

Proposed revenue controls post bill smoothing

Water resources

2017/18 prices (£m)	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Water resources - allowed revenues	91	81	81	80	80	79
Water resources change		-10.8%	-1.0%	-0.3%	-1.1%	-0.3%

Water network

2017/18 prices (£m)	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Water network - allowed revenues	344.8	321	319	318	316	315
Water network change		-7.0%	-0.6%	-0.4%	-0.5%	-0.2%

Wastewater network plus

2017/18 prices (£m)	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Wastewater network - allowed revenues	285.2	243	244	245	246	247
Wastewater network change		-14.9%	0.3%	0.6%	0.6%	0.5%

Bioresources

2017/18 prices (£m)	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Bioresources - allowed revenues	26.4	23	22	22	21	21
Change		-12.4%	-2.5%	-2.3%	-2.6%	-2.1%

Residential retail

2017/18 prices (£m)	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Residential retail service revenue	60.6	58	58	57	57	57
		-4.9%	0.4%	-0.5%	-0.5%	-0.5%

The key observation is that the price reductions are spread over all the five controls. All NWL customers will thus experience bill reductions in 2020/21, whatever the combination of services they receive.

As can be seen from the table, the key bill changes are in 2020/21, with smaller reductions from 2021/22 to 2024/25.

APPENDIX 5.1
SEPARATE PRICE CONTROLS ANALYSIS

Water resources

Water resources	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
PAYG expenditure	57.4	55.8	55.5	54.2	52.9	52.8
Pension deficit costs	0.3	0.4	0.5	0.5	0.5	0.5
Return on capital	10.4	8.3	8.0	7.8	7.5	7.2
Depreciation	17.2	17.1	16.4	15.7	15.0	14.4
Tax	3.9	1.5	1.5	2.0	2.0	2.6
Other income	(1.4)	(1.4)	(1.4)	(1.4)	(1.4)	(1.4)
Revenue solving adjustment		(1.7)	(1.3)	0.1	1.5	1.7
Post financeability adjustments	3.6	1.4	1.5	1.5	1.6	1.6
Capital contributions		-	-	-	-	-
Final allowed revenues	91.4	81.5	80.7	80.4	79.6	79.3

Setting prices for water resources

When we spoke to our customers, they told us that improving the environment and delivering reliable and resilient services was important to them. We have developed some key themes around these areas in our business plan.

Our water resources expenditure is driven principally by the ongoing maintenance of our assets and managing our water supplies and the interactions with the natural environment. Our run off rate is in line with the asset lives for these assets.

The Water Industry National Environment Programme (WINEP) represents a significant investment in the water resources price control with around £15.8m of investment allocated to supporting measures to meet the requirements of the Water Framework Directive (WFD). This will deliver improvements to 439km of rivers and coastal waters. Our other investments in this control include the expansion of our catchment management activities and measures to improve access to the water environment for our customers.

Having a separate control for water resources has caused us to focus more on the costs of these activities. We have therefore set ourselves a more stretching set of efficiency targets to ensure that our costs are in line with other upper quartile companies.

We have included a smoothed £7m incentive payment in 2020/21 for our major long term water trade with Thames Water, the largest in the industry since privatisation. More details are in the table commentary for Ws17.

Incentive rewards and penalties would be applied to these allowed revenues based on our performance against the commitments set out in our plan that relate to water resources, such as our commitment to improve the water environment and the Abstraction Incentive Mechanism.

APPENDIX 5.1
SEPARATE PRICE CONTROLS ANALYSIS

Water resources control – financial summary

Outturn (£m)	2020/21	2021/22	2022/23	2023/24	2024/25
Water resources					
RCV	310	304	298	292	287
Fixed assets	78	80	81	81	81
Debt	199	191	180	170	157
Gearing	63%	61%	59%	57%	53%
Retained profits	9	8	11	10	13

An analysis of the water resources control suggests that the control is a viable business, with sustainable gearing and retained profits after dividends.

The only point of concern for water resources would be the large difference between the RCV value and the fixed assets value. As debt is allocated in proportion to the RCV, the financial model suggests that, for the historical cost balance sheet, there would be negative net assets. This is essentially a difference between low historical net book value costs and higher current cost values (MEAVs). The only remedy appears to be to allocate less debt, which, given the current efficient level of gearing, would be a sub-optimal financing structure. We have thus left the modelling assumptions intact.

Water resources RCV

Water resources	2020/21	2021/22	2022/23	2023/24	2024/25
Opening	315.7	309.8	304.2	298.4	292.4
Indexation	7.9	7.7	7.6	7.4	7.3
Depreciation	(18.1)	(17.7)	(17.3)	(16.9)	(16.6)
Additions	4.3	4.4	3.9	3.4	3.5
Closing	309.8	304.2	298.4	292.4	286.6

The water resources RCV declines over 2020-25. This is due to the depreciation of past investment along with the low level of enhancement expenditure for water resources over 2020-25.

Enhancement capex is £5m for 2020-25, which is less than 40% of the total depreciation charge for the period. Thus, the large level of investment in the Abberton Reservoir expansion over 2005-10 is gradually being repaid by customers.

APPENDIX 5.1
SEPARATE PRICE CONTROLS ANALYSIS

Water network plus

Water network	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
PAYG expenditure	158.3	153.9	152.7	151.6	150.8	149.9
Pension deficit costs	3.8	6.0	7.3	7.4	7.5	7.6
Return on capital	62.0	49.5	51.8	54.3	56.1	57.2
Depreciation	87.2	86.4	89.3	92.4	94.8	95.9
Tax	18.4	7.0	6.1	5.4	5.2	5.8
Other income	(7.0)	(7.0)	(7.0)	(7.0)	(7.0)	(7.0)
Revenue solving adjustment		0.7	6.5	1.3	(2.9)	(6.3)
Post financeability adjustments	13.1	11.4	-	-	-	-
Capital contributions	9.1	12.5	12.3	12.1	11.8	11.9
Final allowed revenues	344.8	320.5	319.0	317.4	316.2	314.9

Setting prices for water networks

Our engagement with our customers emphasised the importance of us delivering resilient and reliable services, which is a key theme of our overall plan. They also emphasised the importance of supply interruptions, leakage, mains bursts and water quality issues.

Our water network expenditure is driven principally by investments to maintain and improve the resilience of the network and the ongoing maintenance and operation of the network. Our run off rate is in line with the asset lives for these assets.

Key activities in 2020-25 include investments to deliver improvements at sites we identified as ‘too critical to fail’ and improving the connectivity of the network. Other investments include activities to support area metering, with a 14 day installation target for new meters which will allow us to put meters in place quickly. We will enable our customers to choose whether to opt onto a meter or not. There will also be a modest increase in our replacement rate of mains to deliver reductions to mains bursts and leakage, alongside investments such as targeted replacement of lead pipes in ‘hot spot’ areas to improve drinking water quality, taste and odour in line with customer support for these investments. In total, these capex enhancements are around £300m over 2020-25.

Other adjustments are made up of capital contributions from developers for new connections and infrastructure charges of approximately £12m per year. There is an £11m PR14 reconciliation adjustment in 2020/21 comprising £8m for a totex efficiency model adjustment and £3m for a PR09 true up adjustment.

Incentive rewards and penalties would be applied to these allowed revenues based on our performance against the commitments set out in Section 3.3 that relate to water network activities. These include drinking water quality and taste and odour, leakage, supply interruptions, mains bursts and unplanned outages of water treatment works.

APPENDIX 5.1
SEPARATE PRICE CONTROLS ANALYSIS

Water network plus control – financial data

Outturn (£m)	2020/21	2021/22	2022/23	2023/24	2024/25
Water network plus					
RCV	1,892	2,004	2,110	2,192	2,247
F assets	2,317	2,417	2,511	2,583	2,627
Debt	1,289	1,374	1,457	1,522	1,560
Gearing	68%	68%	69%	69%	69%
Retained profits	20	19	16	15	16

An analysis of the water network plus control suggests that the control is a viable business, with sustainable gearing.

Water network plus RCV

Water network plus	2020/21	2021/22	2022/23	2023/24	2024/25
Opening	1,801	1,892	2,004	2,110	2,192
Indexation	45	47	49	51	52
Depreciation	(92)	(97)	(102)	(107)	(110)
Additions	137	162	159	138	113
Closing	1,892	2,004	2,110	2,192	2,247

The water network plus RCV indicates significant growth over the period, reflecting the high level of enhancement expenditure that is not classed as PAYG. Debt increases in line with the RCV growth, leaving gearing stable over the period.

APPENDIX 5.1
SEPARATE PRICE CONTROLS ANALYSIS

Wastewater network plus

Wastewater network	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
PAYG expenditure	112.3	96.2	92.0	83.1	80.9	80.5
Pension deficit costs	2.3	2.5	3.0	3.0	3.1	3.1
Return on capital	69.5	52.1	53.1	55.1	58.6	62.1
Depreciation	83.5	88.1	88.9	91.3	95.9	100.5
Tax	6.9	4.7	5.2	6.0	4.5	3.8
Other income	(1.3)	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)
Revenue solving adjustment		(0.5)	(0.6)	4.4	1.3	(4.7)
Post financeability adjustments	8.8	(2.3)	-	-	-	-
Capital contributions	3.2	3.6	3.6	3.6	3.7	3.7
Final allowed revenues	285.2	242.7	243.6	244.8	246.2	247.3

Setting prices for wastewater networks

When we spoke to customers they told us that improving the environment and delivering reliable and resilient services was important to them and we have developed some key themes around these areas. Customers also emphasised the importance of reducing sewer flooding. The Water Forums have also encouraged us to retain our performance commitment around reducing repeat flooding.

Our wastewater network capital expenditure is increasing over the AMP despite our significant efficiency ambitions. These capital investments are driven principally by our wastewater resilience plan, which requires £198m of investment to improve and reduce our dependence on critical assets, £111m to support growth in our operating areas and upgrade our network and treatment assets and a significant WINEP programme of environmental improvements, including £116.4m for wastewater operations to meet the WFD requirements and 451km of improvements to rivers and coastal waters. Our run off rate is in line with the asset lives of these assets.

Other adjustments are made up of a £2m PR14 totex efficiency reconciliation adjustment in 2020-21 and £6m annual capital contribution from connection charges and revenue from infrastructure charges.

Incentive rewards and penalties would be applied to these allowed revenues based on our performance against the commitments set out in Section 3.3 that relate to wastewater networks. These commitments include pollution incidents, sewer collapses, treatment works compliance, risk of flooding, sewer flooding, repeat sewer flooding and sewer blockages.

APPENDIX 5.1
SEPARATE PRICE CONTROLS ANALYSIS

Wastewater network plus financial data

Outturn (£m)	2020/21	2021/22	2022/23	2023/24	2024/25
Wastewater network plus					
RCV	1,969	2,047	2,161	2,348	2,472
F assets	2,129	2,214	2,337	2,535	2,672
Debt	1,371	1,430	1,521	1,677	1,786
Gearing	69%	70%	70%	71%	72%
Retained profits	17	21	29	31	30

An analysis of the wastewater network plus control suggests that the control is a viable business. Debt increases by less than the RCV, suggesting that the increase in gearing is a temporary technical effect that could be reversed by increasing PAYG if required. However, we see no reason to adjust customer bills on this basis given that the appointed business gearing is stable and the business plan is financeable overall.

Wastewater network plus	2020/21	2021/22	2022/23	2023/24	2024/25
Opening	1,928	1,969	2,047	2,161	2,348
Indexation	49	49	50	52	56
Depreciation	(94)	(96)	(101)	(108)	(116)
Additions	86	125	164	243	183
Closing	1,969	2,047	2,161	2,348	2,472

The wastewater network plus RCV indicates significant growth over the period, reflecting the high level of enhancement expenditure that is not classed as PAYG. Debt increases in line with the RCV growth, leaving gearing stable over the period.

APPENDIX 5.1
SEPARATE PRICE CONTROLS ANALYSIS

Bioresources

Bioresources	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
PAYG expenditure	7.2	6.2	6.1	6.0	6.0	5.9
Pension deficit costs	0.3	0.3	0.4	0.4	0.4	0.4
Return on capital	5.2	3.9	3.9	3.9	3.9	4.0
Depreciation	10.8	11.4	10.8	10.3	9.8	9.4
Tax	2.0	1.3	1.3	1.3	1.2	1.2
Other income	-	-	-	-	-	-
Revenue solving adjustment	-	(0.1)	(0.0)	0.0	0.1	0.0
Post financeability adjustments	0.8	-	-	-	-	-
Capital contributions	-	-	-	-	-	-
Final allowed revenues	26.3	23.1	22.5	22.0	21.4	21.0

Setting prices for bioresources

Both our bioresources strategy and our engagement with customers support our overall approach to the price control. Customers support the use of renewable energy and the expansion of our already industry-leading activities in this area.

Our market strategy seeks to build on the leading unit cost efficiency of our bioresources assets, including our sites at Howdon and Bran Sands which already ensure that 100% of our sludge is treated by advanced anaerobic digestion plants generating significant energy from waste. All our investments are funded through further efficiencies to be delivered during the control.

Our current strategy envisages an investment at our Bran Sands site to enable a gas to grid transfer. Our other bioresources expenditure is driven principally by the need to maintain the assets and operations. Our run off rate is in line with the asset lives of the assets within this control.

There are no other adjustments in 2020-25.

Incentive rewards and penalties would be applied to these allowed revenues based on our performance against the commitments set out in Section 3.3 that relate to bioresources.

Bioresources price controls will be set as average revenue price controls based on tonnes of dry solids (TDS) and we have provided a forecast of TDS in our business plan tables.

APPENDIX 5.1
SEPARATE PRICE CONTROLS ANALYSIS

Bioresources financial data

Outturn (£m)	2020/21	2021/22	2022/23	2023/24	2024/25
Bioresources					
RCV	146	148	150	152	155
F assets	74	77	80	82	84
Debt	101	102	102	103	104
Gearing	69%	68%	68%	67%	67%
Retained profits	4	3	3	2	2

An analysis of the bioresources control suggests that the control is a viable business, with sustainable gearing and retained profits after dividends.

The only point of concern for bioresources would be the difference between the RCV value and the fixed assets value. As debt is allocated in proportion to the RCV, the financial model suggests that, for the historical cost balance sheet, there would be negative net assets. This is essentially a difference between low historical net book value costs and higher current cost values (MEAVs). The only remedy appears to be to allocate less debt, which, given the current efficient level of gearing, would be a sub-optimal financing structure. We have thus left the modelling assumptions intact.

Bioresources RCV

Bioresources	2020/21	2021/22	2022/23	2023/24	2024/25
Opening	145	146	148	150	152
Indexation	4	4	4	4	4
Depreciation	(12)	(12)	(11)	(11)	(11)
Additions	9	10	10	10	10
Closing	146	148	150	152	155

The bioresources RCV increases in outturn over 2020-25, but declines slightly in real terms. This is due to the depreciation of past investment along with the forecast of no enhancement expenditure for bioresources over 2020-25.

Thus, the large of investment in the advanced anaerobic digestion assets over 2005-15 is gradually being repaid by customers.

APPENDIX 5.1
SEPARATE PRICE CONTROLS ANALYSIS

Residential retail revenues

Residential retail	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Retail costs	53.9	49.7	49.9	49.5	49.1	48.7
Retail margin	6.7	7.8	7.9	8.0	8.1	8.2
Retail revenue	60.6	57.6	57.8	57.5	57.2	56.9

Residential retail financial data

Outturn (£m)	2020/21	2021/22	2022/23	2023/24	2024/25
Residential retail					
F assets	32	31	30	29	28
Debt	(4)	(6)	(9)	(13)	(17)
Retained profits	7	7	8	8	8

Setting prices for residential retail

Whilst most of our customers were happy with the service they currently receive from us, we have set out a clear ambition in the plan to deliver an unrivalled customer experience, as well as very challenging targets to reduce water poverty and increase support to vulnerable customers.

Our retail expenditure is relatively stable over the 2020-25 period. In the current price control period, we have invested in a new billing and customer care system that is helping to improve the level of service our customers' experience. In the 2020-25 period, we intend to take forward our 'Think Digital' transformation programme which should further help us to meet our ambitions of delivering an unrivalled customer experience. Other expenditure will help us to improve the range of service we provide to customers to help meet our ambitious targets of eradicating water poverty by 2030 and increasing the affordability of our services to customers. All our new investments are funded through efficiencies within the control.

Incentive rewards and penalties would be applied to these allowed revenues based on our performance against the commitments set out in our plan.

Residential retail price controls will be set as weighted average revenue price controls based on the number of customers served by different type (if there are differences in the costs of serving those different types). The five different customer types are based on whether the customer is measured or unmeasured and whether the customer receives a dual or single service.

The revenue above is taken from the Ofwat financial model, which deflates outturn costs by CPIH. In calculating our outturn costs, we applied the input price pressures adjustments that were assessed by Economic Insight which we included in Table App24a.

We have not assumed a dividend for the residential retail business, and have instead used the retained profits to finance capital investment. We anticipate that this investment will enable us to deliver the challenging retail efficiencies we have set out in our plan.