

COMMERCIAL IN CONFIDENCE



# **Tideway updated revised Revenue Statement 2016**

**Allowed Revenue for Charging Year 2017/18**

COMMERCIAL IN CONFIDENCE



## RPI Updated IP Charge Notification - 2017/18

Submitted to Thames Water on 15/12/16

IP Charge for 2017/18 (£)

28,559,132

### November 2016 RPI

265.5

Source: RPI (All Items) index, Consumer Price Inflation Reference Tables, Table 36, 13 December 2016, Office for National Statistics

Inputs 2016

Unit	Source/notes	2012/13	2013/14	2014/15	First Charging Year 2015/16	Second charging year 2016/17	Third Charging Year 2017/18	Fourth Charging Year 2018/19	Fifth Charging Year 2019/20	Sixth Charging Year 2020/21	
Year starts					01/04/2015	01/04/2016	01/04/2017	01/04/2018	01/04/2019	01/04/2020	
Year ends					31/03/2016	31/03/2017	31/03/2018	31/03/2019	31/03/2020	31/03/2021	
Year t-2					2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	
Year t-1					2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	
Year t					2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	
Year t+1					2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	
Year t+2					2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	
<b>1.1 2014/15 RPI Adjustment Factor</b>											
Forecast RPI Adjustment Factor for the calendar year in which Charging Year commences	%						1.7%	2.8%	3.0%	3.1%	3.3%
Forecast RPI Adjustment Factor for the calendar year in which Charging Year ends	%						2.8%	3.0%	3.1%	3.3%	
RPI, September of Charging Year				257.6	259.6	264.9					
RPI, March of Charging Year		254.8	257.1	261.1							
<b>Applicable Change in Revenue RPI</b>											
RPI (RPI for November in Charging Year Y+1)		245.6	252.1	259.6	259.8	265.5					
Year average RPI				256.7	259.4						
<b>A.3. Return on Capital and A.4 Liquidity</b>											
Water Services Regulation Authority Stated RCV (2014/15 Prices) at 31 March	2014/15 prices, £		0	0	148,741,346						
Allowable Project Spend (actual and forecast) - as at October 2016											
Annual Actual Project Spend	Outturn prices, £			0	150,344,662	144,928,941					
Estimated Allowable Project Spend	Outturn prices, £			0	0	0					
Forecast Allowable Project Spend	Outturn prices, £			0	0	244,031,366	550,430,647	604,943,808			
Excluded Project Spend	Outturn prices, £				61,180,637	18,344,738					
Alliance Agreement receipts - expenditure funded by these receipts is treated as Excluded Project Spend and therefore is excluded from the Allowable spend metrics set out above	Outturn prices, £			0	0	0	0	0			
BWACC	%				2.497%						
<b>A.5. Opex</b>											
Opex forecast as at October 2016	Outturn prices, £				0	0	0	0			
<b>A.6. Financing Cost Adjustment</b>											
Financing Cost Adjustment Index Yield - 12 months trailing average at 31 March	%				1.30%	1.46%					
Water Services Regulation Authority Adjusted RCV (Current Prices) at 31 March	Current prices at 31 March of Charging Year	0	0	0	151,310,515						
Net Debt at 31 March	Current prices at 31 March of Charging Year	0	0	0	-130,376,913						
Notional Debt to RCV ratio	%				62.5%						
<b>A 1.4. Tax</b>											
Tax as at October 2016	Outturn prices, £				0	0	0	0			
<b>A.7. Under/Over Recovered Revenue Adjustment - as at October 2016</b>											
Allowed Revenue	£					33,603,285					
Amount recovered in respect of IP Charge as at end of (Charging Year T-3)	£										
Amount recovered in respect of IP Charge April - September accounting periods (Charging Year T-2)	£										
Amount recovered in respect of IP Charge as at end of (Charging Year T-2)	£										
Amount recovered in respect of IP Charge April - September accounting periods (Charging Year T-1)	£										
<b>A.8. Reconciliation adjustment</b>											
Time since most recent calculation	Years				1	1	0				
Reconcile this year?					1	1	0				
Allowed Revenue as per most recently submitted Revenue Statement	£				11,164,299	22,438,987					
<b>A.11. Additional Return on Capital Building Block</b>											
Additional Allowable Project Spend											
<b>A 1.6.4. Net Present Value Adjustment</b>											
End of first charging year					31/03/2016						
Licence Award					24/08/2016						

BBRA Inputs 2015

	Unit	Source/notes	2012/13	2013/14	2014/15	First Charging Year 2015/16	Second charging year 2016/17	Third Charging Year 2017/18	Fourth Charging Year 2018/19	Fifth Charging Year 2019/20
Year starts						01/04/2015	01/04/2016	01/04/2017	01/04/2018	01/04/2019
Year ends						31/03/2016	31/03/2017	31/03/2018	31/03/2019	31/03/2020
Year t-2						2013/14	2014/15	2015/16	2016/17	2017/18
Year t-1						2014/15	2015/16	2016/17	2017/18	2018/19
Year t						2015/16	2016/17	2017/18	2018/19	2019/20
Year t+1						2016/17	2017/18	2018/19	2019/20	2020/21
Year t+2						2017/18	2018/19	2019/20	2020/21	2021/22
<b>1.1 2014/15 RPI Adjustment Factor</b>										
Forecast RPI Adjustment Factor for the calendar year in which Charging Year commences	%	UPDATED FOR RECONCILIATION Source: Average independent new forecasts for RPI, Table M3, "Forecasts for the UK economy: a comparison of independent forecasts", HM Treasury, August 2016 Required by Project Licence Appendix 1, 1.1 (i), (ii), (iii)						1.7%	2.8%	3.0%
Forecast RPI Adjustment Factor for the calendar year in which Charging Year ends	%	UPDATED FOR RECONCILIATION Source: Average independent new forecasts for RPI, Table M3, "Forecasts for the UK economy: a comparison of independent forecasts", HM Treasury, August 2016 Required by Project Licence Appendix 1, 1.1 (i), (ii), (iii)						2.8%	3.0%	3.1%
RPI, September of Charging Year		UPDATED FOR RECONCILIATION Source: RPI (All Items) index, Consumer Price Inflation Reference Tables, Table 36, 18 October 2016, Office for National Statistics. Required by Project Licence Appendix 1, 1.1 (ii)			257.6	259.6	264.9			
RPI, March of Charging Year		UPDATED FOR RECONCILIATION Source: RPI (All Items) index, Consumer Price Inflation Reference Tables, Table 36, 14 June 2016, Office for National Statistics. Estimate for September RPI based on March RPI and annual inflation rate Required by Project Licence Appendix 1, 1.1 (ii)	254.8	257.1	261.1					
<b>Applicable Change in Revenue RPI</b>										
RPI (RPI for November in Charging Year Yt-1)		Source: RPI (All Items) index, Consumer Price Inflation Reference Tables, Table 36, November 2015, Office for National Statistics. Required by Project Licence Appendix 1, Part A 3, 4 and 6 Note: for both First and Second Charging years, stated RPI is for November 2015, as Allowed Revenue for both these years is being calculated together		245.6	252.1	259.8	259.8			
Year average RPI		UPDATED FOR RECONCILIATION Source: Calculated from RPI (All Items) index, Consumer Price Inflation Reference Tables, Table 36, 14 June 2016 Office for National Statistics Required by Project Licence Appendix 1, Part A 3, 4 and 6 and Appendix 1, 1.1 (iv)			256.7	259.4				
<b>A.3. Return on Capital and A.4 Liquidity</b>										
Water Services Regulation Authority Stated RCV (2014/15 Prices) at 31 March	2014/15 prices, £	Source: Ofwat published figure, zero prior to licence award Required by Project Licence Appendix 1, Part A 3		0	0					
<b>Allowable Project Spend (actual and forecast) - as at October 2016</b>										
Annual Actual Project Spend	Outturn prices, £	UPDATED FOR RECONCILIATION Source: "Allowable Project Spend Verification No 5 Sign Off.pdf" Required by Project Licence Appendix 1, Part A 3			0	150,344,662	144,928,941			
Estimated Allowable Project Spend	Outturn prices, £	UPDATED FOR RECONCILIATION Source: "Regulation Reporting Sep 16" Required by Project Licence Appendix 1, Part A 3			0	0	0			
Forecast Allowable Project Spend	Outturn prices, £	UPDATED FOR RECONCILIATION Source: ITA - Tideway Expenditure Forecast Verification 2016/10/19.pdf Required by Project Licence Appendix 1, Part A 3, 4			0	0	244,031,366	550,430,647		
Excluded Project Spend	Outturn prices, £	Data removed as not required for reconciliation purposes. See "Inputs 2016".								
Alliance Agreement receipts - expenditure funded by these receipts is treated as Excluded Project Spend and therefore is excluded from the Allowable spend metrics set out above	Outturn prices, £	Data removed as not required for reconciliation purposes. See "Inputs 2016".								
BWACC	%	Source: Project Licence, Appendix 1, 1.18 Required by Project Licence Appendix 1, Part A 3, 4, 6, 7, 8				2.497%				
<b>A.5. Opex</b>										
Opex forecast as at October 2016	Outturn prices, £	Note: In line with the Project Licence, zero as all expenditure treated as capex. Required by Project Licence Appendix 1, Part A 5				0	0			
<b>A.6. Financing Cost Adjustment</b>										
Financing Cost Adjustment Index Yield - 12 months trailing average at 31 March	%	Source: "20161018_TTT index data.xlsx" Calculated with reference to iBoxx BBB data from Bloomberg and spot implied inflation rates for 10 year maturity from Bank of England Required by Project Licence Appendix 1, Part A 6				1.30%				
Water Services Regulation Authority Adjusted RCV (Current Prices) at 31 March of Charging Year	Current prices at 31 March of Charging Year	Source: Ofwat published figure, zero prior to Licence award Required by Project Licence Appendix 1, Part A 6	0	0	0					
Net Debt at 31 March	Current prices at 31 March of Charging Year	Source: IP regulatory accounts, zero prior to Licence award Required by Project Licence Appendix 1, Part A 6	0	0	0					
Notional Debt to RCV ratio	%	Source: Project Licence Appendix 1, 1.42 Required by Project Licence Appendix 1, Part A 6				62.5%				
<b>A 1.4. Tax</b>										
Tax as at October 2016	Outturn prices, £	In line with the Project Licence, zero as the IP is not required to pay corporation tax or any other income-based tax See Project Licence Appendix 1, Part A 1.4				0	0			
<b>A.7. Under/Over Recovered Revenue Adjustment - as at October 2015</b>										
Allowed Revenue	£	See Project Licence, Appendix 1, Part A.7								
Amount recovered in respect of IP Charge as at end of [Charging Year T-3]	£	Not applicable for 2015 and 2016 Revenue Statements as adjustment applies in respect of Charging Year T-2, and 2015 is the first year the Allowed Revenue calculation has been made. In future years, source will be previous Revenue Statements								
Amount recovered in respect of IP Charge April - September accounting periods [Charging Year T-2]	£	Not applicable for 2015 and 2016 Revenue Statements as adjustment applies in respect of Charging Year T-2, and 2015 is the first year the Allowed Revenue calculation has been made. In future years, source will be IP regulatory accounts								
Amount recovered in respect of IP Charge as at end of [Charging Year T-2]	£	Not applicable for 2015 and 2016 Revenue Statements as adjustment applies in respect of Charging Year T-2, and 2015 is the first year the Allowed Revenue calculation has been made. In future years, source will be IP regulatory accounts								
Amount recovered in respect of IP Charge April - September accounting periods [Charging Year T-1]	£	Not applicable for 2015 and 2016 Revenue Statements as adjustment applies in respect of Charging Year T-2, and 2015 is the first year the Allowed Revenue calculation has been made. In future years, source will be IP internal accounting records								
<b>A.8. Reconciliation adjustment</b>										
Time since first calculation	Years	See Project Licence, Appendix 1, Part A 8								
Reconcile this year?		Not applicable for 2015 Revenue Statement as reconciliation adjustment applies in respect of Charging Year T-1 and 2015 is the first year the Allowed Revenue calculation has been made. This input will represent the number of years since revenue was first calculated to feed into the NPV adjustment of the reconciliation adjustment Not applicable for 2015 Revenue Statement as reconciliation adjustment applies in respect of Charging Year T-1 and 2015 is the first year the Allowed Revenue calculation has been made. In future years, this input will be defined as follows: 1 = yes, 0 = no								
<b>A.11. Additional Return on Capital Building Block</b>										
Additional Allowable Project Spend		Not applicable at present. Inputs to be added if this building block becomes relevant (i.e. if Tideway makes an IAR Overrun Application to increase Allowable Project Spend above the Threshold Outturn). See Project Licence, Appendix 1, Part A 11								
<b>A 1.6.4. Net Present Value Adjustment</b>										
End of first charging year		Last day of the First Charging Year				31/03/2016				
Licence Award		Date of Licence award				24/09/2015				

BBRA Calculation 2015

Building Block

	Unit	Notes/description	2013/14	2014/15	First Charging Year	Second Charging Year
Year starts					2015/16	2016/17
Year ends					01/04/2015	01/04/2016
Year t-2					31/03/2016	31/03/2017
Year t-1					2013/14	2014/15
Year t					2014/15	2015/16
Year t+1					2015/16	2016/17
Year t+2					2016/17	2017/18
					2017/18	2018/19
1.1 2014/15 RPI Adjustment Factor		A factor calculated for each Charging Year to express costs associated with that year in a 2014/15 price base. See Project Licence, Appendix 1, 1.1				
(a) for the purposes of calculating Forecast Allowable Project Spend for Charging Year Yt+1, estimated Allowable Project Spend for the said Charging Year shall be deflated from a price base in Charging Year Yt+1 to the Base RPI Index year ([2014/15]), using an adjustment factor derived from multiplying the factors set out in (i), (ii), (iii)						
Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt+1 commences	%	Forecast RPI - see input sheet for description of source			2.8%	2.8%
Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt+1 ends	%	Forecast RPI - see input sheet for description of source			3.0%	3.0%
Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt commences	%	Forecast RPI - see input sheet for description of source			1.7%	1.7%
Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt ends	%	Forecast RPI - see input sheet for description of source			2.8%	2.8%
Percentage movement in the RPI (All Items) index as published by Office for National Statistics for the period April to September in the calendar year in which Charging Year Yt-1 commenced	%	NOT USED FOR RECONCILIATION Calculated with reference to the index values for March and September to capture April to September inflation (see 'Statement of calculation 2016')				1.0%
Percentage movement in the RPI (All Items) index as published by Office for National Statistics for the period April to September in the calendar year in which Charging Year Yt commenced	%	NEW ROW ADDED FOR RECONCILIATION Calculated with reference to the index values for March and September to capture April to September inflation (see 'Statement of calculation 2016')				1.5%
Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt-1 commenced	%	NOT USED FOR RECONCILIATION Forecast RPI - see input sheet for description of source			0.0%	0.0%
Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt-1 ends	%	NOT USED FOR RECONCILIATION Forecast RPI - see input sheet for description of source			0.0%	0.0%
Base RPI		Year average RPI for 2014/15, used as base year RPI			256.7	256.7
Charging Year Yt-2, or where this is on or before Base RPI Index year, 2014/15		Year average RPI for Charging year T-2 (or 2014/15 where this is later)			256.7	256.7
Charging Year Yt-1		NEW ROW ADDED FOR RECONCILIATION Year average RPI for Charging year T-1			259.4	259.4
1.1 (i)		Factor used to adjust prices from Charging Year T+1 to Charging Year T			1.03	1.03
1.1 (ii)		CALCULATION ALTERED FOR RECONCILIATION Factor used to adjust prices from Charging Year T to Charging Year T-1			1.01	1.01
1.1 (iii)		CALCULATED ALTERED FOR RECONCILIATION Factor used to adjust prices from Charging Year T-1 to Charging Year T-2			1.01	1.01
1.1 (iv)		Factor used to adjust prices from Charging Year T-2 to Charging Year T-3			1.00	1.00
RPI Adjustment Factor Charging Year T+1		Combines factors (i), (ii), (iii) and (iv) above to calculate factor used to adjust prices from Charging Year T+1 to 2014/15 price base. For First Charging Year, use calculations from Second Charging Year in relation to Charging Year T			1.04	1.07
RPI Adjustment Factor Charging Year T		Combines factors (ii), (iii) and (iv) above to calculate factor used to adjust prices from Charging Year T to 2014/15 price base. For First Charging Year, use calculations from Second Charging Year in relation to Charging Year T-1			1.01	1.04
RPI Adjustment Factor Charging Year T-1		Combines factors (iii) and (iv) above to calculate factor used to adjust prices from Charging Year T-1 to 2014/15 price base. For First Charging Year, use calculations from Second Charging Year in relation to Charging Year T-2			1.00	1.01
RPI Adjustment Factor Charging Year T-2		Equal to factor (iv) above - used to adjust prices from Charging Year T-2 to 2014/15 price base. Set equal to 1 for Second Charging Year as Year T-2 is equal to base year				1.00
Applicable Change in Revenue RPI		RPI in November of previous Charging Year relative to 2014/15 base year	0.96	0.98	1.01	1.01
RPIt		RPI in November of Charging Year T-1	245.6	252.1	259.8	259.8
RPIbase (Base RPI Index)		Average RPI for 2014/15	256.7	256.7	256.7	256.7
A.1. Allowed Revenue	£	Total Allowed Revenue calculated as the total of the building blocks below, in accordance with Project Licence, Appendix 1, 1.4. See Statement of calculation 2016 for further detail. Second Charging Year Allowed Revenue incorporates Allowed Revenue for First Charging Year.			8,500,117	28,433,553
A.3. Return on Capital	£	The Return on Capital building block allows the IP to earn a return on capital in relation to the forecast average RCV in the Charging Year in question. See Project Licence, Appendix 1, Part A 3			1,879,706	8,500,117
Ofwat Stated RCV for Yt-2	£, 2014/15 prices	RCV at the end of Charging Year T-2 as published by Ofwat by 1 September following the end of the Charging Year			0	0
OPRCV Yt-1	£, 2014/15 prices	Opening RCV for Charging Year T-1. Zero for both the First and Second Charging Years			0	0
2014/15 RPI Adjustment Factor Yt-1		Scalar to adjust forecast costs for Charging Year T-1 to 2014/15 price base			1.00	1.01
Annual Actual Project Spend Yt-1	£, 2014/15 prices	Allowable Project Spend (verified by the ITA) incurred in Charging Year T-1			0	148,741,346
Estimated Allowable Project Spend Yt-1	£, 2014/15 prices	Allowable Project Spend (not verified by the ITA) incurred in Charging Year T-1			0	0
Forecast Allowable Project Spend Yt-1	£, 2014/15 prices	Allowable Project Spend forecast to be incurred in Charging Year T-1			0	0
OPRCV Yt	£, 2014/15 prices	Opening RCV for Charging Year T - the sum of opening RCV for Charging year T-1 and all Allowable Project Spend in that year			0	148,741,346
2014/15 RPI Adjustment Factor Yt		Scalar to adjust forecast costs for Charging Year T to 2014/15 price base			1.01	1.04
Annual Actual Project Spend Yt	£, 2014/15 prices	Allowable Project Spend (verified by the ITA) incurred in Charging Year T			148,741,346	139,776,611
Estimated Allowable Project Spend Yt	£, 2014/15 prices	Allowable Project Spend (not verified by the ITA) incurred in Charging Year T			0	0
Forecast Allowable Project Spend Yt	£, 2014/15 prices	Allowable Project Spend forecast to be incurred in Charging Year T			0	235,355,872
CPRCV Yt	£, 2014/15 prices	Closing RCV for Charging Year T - the sum of opening RCV for Charging Year T and all Allowable Project Spend in that year			148,741,346	523,873,829
YARCV Yt	£, 2014/15 prices	Year average RCV for Charging Year T			74,370,673	336,307,587
A.4. Liquidity	£	The Liquidity building block allows the IP a liquidity allowance (return on capital) in relation to the incremental average RCV in the year following the Charging Year in question. See Project Licence, Appendix 1, Part A 4			6,620,411	11,263,532
OPRCV Yt+1	£, 2014/15 prices	Opening RCV for Charging Year T+1			148,741,346	523,873,829
2014/15 RPI Adjustment Factor Yt+1		Scalar to adjust forecast costs for Charging Year T+1 to 2014/15 price base			1.04	1.07
Annual Actual Project Spend for year t+1	£, 2014/15 prices	Allowable Project Spend (verified by the ITA) incurred in Charging Year T+1			139,776,611	0
Estimated Allowable Project Spend for year t+1	£, 2014/15 prices	Allowable Project Spend (not verified by the ITA) incurred in Charging Year T+1			0	0
Forecast Allowable Project Spend for year t+1	£, 2014/15 prices	Allowable Project Spend forecast to be incurred in Charging Year T+1			0	235,355,872
CPRCV Yt+1	£, 2014/15 prices	Closing RCV for Charging Year T+1			523,873,829	1,040,025,927
FYARCV Yt+1	£, 2014/15 prices	Average RCV for Charging Year T+1			336,307,587	781,949,878
A.5. Opex		In line with the Project Licence, the Opex building block is zero as all costs are accounted for as capital expenditure. See Project Licence, Appendix 1, Part A 5			0	0
A.6. Financing Cost Adjustment building block		The Financing Cost Adjustment building block is intended to protect against movements in the market cost of debt, by comparing a measure of financing costs at an annual reference point to a base reference point of March 2015. See Project Licence, Appendix 1, Part A 6			0	0
Financing Cost Adjustment Yt					0	0
Financing Cost Adjustment Index Yield	%	See Project Licence Appendix 1, Part A 6.3			1.30%	
Base Reference Point (BRP)	%	The historic 12 months' trailing average of the Financing Cost Adjustment Index Yield as at 31 March 2015			1.30%	1.30%
Annual Reference Point (ARP)	%	The historic 12 months' trailing average of the Financing Cost Adjustment Index Yield as at 31 March of Charging Year Yt-2			1.30%	1.30%
BRP-ABP	%	Difference between BRP and ARP			0.0%	0.0%
Market Cost of Debt Adjustment Factor	%	See Project Licence Appendix 1 Part A 6.7			0.0%	0.0%
Net Debt in Charging Year Yt-2	£, current prices (March of Charging Year T-2)	Net Debt at the end of Charging Year T-2 as defined in Project Licence Appendix 1, 1.41			0	0
Water Services Regulation Authority Adjusted RCV (Current Prices) in Charging Year Yt-2	£, current prices (March of Charging Year T-2)	RCV at the end of Charging Year T-2 in then current prices			0	0
Notional Debt to RCV Ratio	%	As defined in Project Licence Appendix 1, 1.42			62.5%	62.5%
Notional Net Debt in Charging Year Yt-2	£, current prices (March of Charging Year T-2)	RCV multiplied by Notional Debt to RCV ratio. See Project Licence Appendix 1 Part A 6.9			0	0
Net Debt in Charging Year Yt-3	£, current prices (March of Charging Year T-3)	Net Debt at the end of Charging Year T-3 as defined in Project Licence Appendix 1, 1.41			0	0
Water Services Regulation Authority Adjusted RCV (Current Prices) in Charging Year Yt-3	£, current prices (March of Charging Year T-3)	RCV at the end of Charging Year T-3 in then current prices			0	0
Notional Debt to RCV Ratio	%	As defined in Project Licence Appendix 1, 1.42			62.5%	62.5%
Notional Net Debt in Charging Year Yt-3	£, current prices (March of Charging Year T-3)	RCV multiplied by Notional Debt to RCV ratio. See Project Licence Appendix 1 Part A 6.9			0	0
Applicable Change in Revenue RPI for Charging Year Yt					1.01	1.01
Applicable Change in Revenue RPI for Charging Year Yt-2					0.96	0.98
A.1.4. Tax	£	In line with the Project Licence, zero as the IP is not required to pay corporation tax or any other income-based tax. See Project Licence Appendix 1, Part A 1.4			0	0
A.7. Under/Over Recovered Revenue Adjustment	£	The revenue adjustment building block is to reconcile for under/over recovered Allowed Revenue in previous Charging Years. Not applicable for 2015 and 2016 Revenue Statements as adjustment applies in respect of Charging Year T-2, and 2015 is the first year the Allowed Revenue calculation has been made. See Project Licence, Appendix 1, Part A.7			0	0
A.8. Reconciliation adjustment	£	Not applicable for 2015 Revenue Statement as reconciliation adjustment applies in respect of Charging Year T-1 and 2015 is the first year the Allowed Revenue calculation has been made. See Project Licence, Appendix 1, Part A 8			0	0
A.11. Additional Return on Capital Building Block	£	Not applicable. To be added to calculation if building block becomes relevant (i.e. if Tideway makes an IAR Overrun Application to increase Allowable Project Spend above the Threshold Outturn). See Project Licence, Appendix 1, Part A 11				
A.11. Additional Liquidity Building Block	£	Not applicable. To be added to calculation if building block becomes relevant (i.e. if Tideway makes an IAR Overrun Application to increase Allowable Project Spend above the Threshold Outturn). See Project Licence, Appendix 1, Part A 11				
A.1.6.4. Net Present Value Adjustment	£	Value adjustment using the BWACC to take account of the fact that Allowed Revenue for the First Charging Year (2015/16) is being calculated and billed one year late.				8,669,904
PD		Calculation of the proportion of a year between Licence award and the end of the First Charging Year				0.60
End of first charging year						31/03/2016
Licence Award						24/08/2015

## Calculation 2016

Building Block	Unit	Notes/description	2013/14	2014/15	First Charging Year	Second Charging Year	Third Charging Year
					2015/16	2016/17	2017/18
Year starts					01/04/2015	01/04/2016	01/04/2017
Year ends					31/03/2016	31/03/2017	31/03/2018
Year t-2					2013/14	2014/15	2015/16
Year t-1					2014/15	2015/16	2016/17
Year t					2015/16	2016/17	2017/18
Year t+1					2016/17	2017/18	2018/19
Year t+2					2017/18	2018/19	2019/20
<b>1.1 2014/15 RPI Adjustment Factor</b>		<i>A factor calculated for each Charging Year to express costs associated with that year in a 2014/15 price base. See Project Licence, Appendix 1, 1.1</i>					
(a) for the purposes of calculating Forecast Allowable Project Spend for Charging Year Yt+1, estimated Allowable Project Spend for the said Charging Year shall be deflated from a price base in Charging Year Yt+1 to the Base RPI Index year ((2014/15)), using an adjustment factor derived from multiply							
Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt+1 commences	%	Forecast RPI - see input sheet for description of source					3.0%
Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt+1 ends	%	Forecast RPI - see input sheet for description of source					3.1%
Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt commences	%	Forecast RPI - see input sheet for description of source					2.8%
Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt ends	%	Forecast RPI - see input sheet for description of source					3.0%
Percentage movement in the RPI (All Items) index as published by Office for National Statistics for the period April to September in the calendar year in which Charging Year Yt-1 commenced	%	Calculated with reference to the index values for March and September to capture April to September inflation (see detailed modelling assumptions sheet)					1.5%
Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt-1 commenced	%	Forecast RPI - see input sheet for description of source					1.7%
Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt-1 ends	%	Forecast RPI - see input sheet for description of source					2.8%
Base RPI		Year average RPI for 2014/15, used as base year RPI					256.7
Charging Year Yt-2, or where this is on or before Base RPI Index year, 2014/15		Year average RPI for Charging year T-2 (or 2014/15 where this is later)					259.4
1.1 (i)		Factor used to adjust prices from Charging Year T+1 to Charging Year T					1.03
1.1 (ii)		Factor used to adjust prices from Charging Year T to Charging Year T-1					1.03
1.1 (iii)		Factor used to adjust prices from Charging Year T-1 to Charging Year T-2					1.03
1.1 (iv)		Factor used to adjust prices from Charging Year T-2 to Charging Year T-3					1.01
RPI Adjustment Factor Charging Year T+1		Combines factors (i), (ii), (iii) and (iv) above to calculate factor used to adjust prices from Charging Year T+1 to 2014/15 price base.					1.10
RPI Adjustment Factor Charging Year T		Combines factors (ii), (iii) and (iv) above to calculate factor used to adjust prices from Charging Year T to 2014/15 price base					1.07
RPI Adjustment Factor Charging Year T-1		Combines factors (iii) and (iv) above to calculate factor used to adjust prices from Charging Year T-1 to 2014/15 price base					1.04
RPI Adjustment Factor Charging Year T-2		Equal to factor (iv) above - used to adjust prices from Charging Year T-2 to 2014/15 price base.					1.01
Applicable Change in Revenue RPI		RPI in November of previous Charging Year relative to 2014/15 base year	0.96	0.98	1.01	1.01	1.03
RPI		RPI in November of Charging Year T-1	245.6	252.1	259.8	259.8	265.5
RPIbase (Base RPI Index)		Average RPI for 2014/15	256.7	256.7	256.7	256.7	256.7
<b>A.1. Allowed Revenue</b>	£	Total Allowed Revenue calculated as the total of the building blocks below, in accordance with Project Licence, Appendix 1, 1.4. See Statement of calculation 2016 for further detail.					28,559,132
<b>A.3. Return on Capital</b>	£	The Return on Capital building block allows the IP to earn a return on capital in relation to the forecast average RCV in the Charging Year in question. See Project Licence, Appendix 1, Part A 3					20,197,263
Otwat Stated RCV for Yt-2	£, 2014/15 prices	RCV at the end of Charging Year T-2 as published by Otwat by 1 September following the end of the Charging Year					148,741,346
OPRCV Yt-1	£, 2014/15 prices	Opening RCV for Charging Year T-1.					148,741,346
2014/15 RPI Adjustment Factor Yt-1		Scalar to adjust forecast costs for Charging Year T-1 to 2014/15 price base					1.04
Annual Actual Project Spend Yt-1	£, 2014/15 prices	Allowable Project Spend (verified by the ITA) incurred in Charging Year T-1					139,776,611
Estimated Allowable Project Spend Yt-1	£, 2014/15 prices	Allowable Project Spend (not verified by the ITA) incurred in Charging Year T-1					0
Forecast Allowable Project Spend Yt-1	£, 2014/15 prices	Allowable Project Spend forecast to be incurred in Charging Year T-1					235,355,872
OPRCV Yt	£, 2014/15 prices	Opening RCV for Charging Year T - the sum of opening RCV for Charging year T-1 and all Allowable Project Spend in that year					523,873,829
2014/15 RPI Adjustment Factor Yt		Scalar to adjust forecast costs for Charging Year T to 2014/15 price base					1.07
Annual Actual Project Spend Yt	£, 2014/15 prices	Allowable Project Spend (verified by the ITA) incurred in Charging Year T					0
Estimated Allowable Project Spend Yt	£, 2014/15 prices	Allowable Project Spend (not verified by the ITA) incurred in Charging Year T					0
Forecast Allowable Project Spend Yt	£, 2014/15 prices	Allowable Project Spend forecast to be incurred in Charging Year T					516,152,098
CPRCV Yt	£, 2014/15 prices	Closing RCV for Charging Year T - the sum of opening RCV for Charging Year T and all Allowable Project Spend in that year					1,040,025,927
YARCV Yt	£, 2014/15 prices	Year average RCV for Charging Year T					781,949,878
<b>A.4. Liquidity</b>	£	The Liquidity building block allows the IP a liquidity allowance (return on capital) in relation to the incremental average RCV in the year following the Charging Year in question. See Project Licence, Appendix 1, Part A 4					13,776,945
OPRCV Yt+1	£, 2014/15 prices	Opening RCV for Charging Year T+1					1,040,025,927
2014/15 RPI Adjustment Factor Yt+1		Scalar to adjust forecast costs for Charging Year T+1 to 2014/15 price base					1.10
Forecast Allowable Project Spend for year t+1	£, 2014/15 prices	Allowable Project Spend forecast to be incurred in Charging Year T+1					550,614,321
CPRCV Yt+1	£, 2014/15 prices	Closing RCV for Charging Year T+1					1,590,640,248
FYARCV Yt+1	£, 2014/15 prices	Average RCV for Charging Year T+1					1,315,333,088
<b>A.5. Opex</b>		In line with the Project Licence, the Opex building block is zero as all costs are accounted for as capital expenditure. See Project Licence, Appendix 1, Part A 5					0
<b>A.6. Financing Cost Adjustment building block</b>		The Financing Cost Adjustment building block is intended to protect against movements in the market cost of debt, by comparing a measure of financing costs at an annual reference point to a base reference point of March 2015. See Project Licence, Appendix 1, Part A 6					0
Financing Cost Adjustment Yt					0	0	0
Financing Cost Adjustment Index Yield	%	See Project Licence Appendix 1, Part A 6.3			1.30%	1.46%	
Base Reference Point (BRP)	%	The historic 12 months' trailing average of the Financing Cost Adjustment Index Yield as at 31 March 2015			1.30%	1.30%	1.30%
Annual Reference Point (ARP)	%	The historic 12 months' trailing average of the Financing Cost Adjustment Index Yield as at 31 March of Charging Year Yt-2			1.30%	1.30%	1.46%
BRP-ABP	%	Difference between BRP and ARP			0.0%	0.0%	-0.2%
Market Cost of Debt Adjustment Factor (absolute)	%	See Project Licence Appendix 1 Part A 6.7			0.0%	0.0%	0.0%
Market Cost of Debt Adjustment Factor (corrected sign)	%	NEW ROW FOR 2016 See Project Licence Appendix 1 Part A 6.7			0.0%	0.0%	0.0%
Net Debt in Charging Year Yt-2	£, current prices (March of Charging Year T-2)	Net Debt at the end of Charging Year T-2 as defined in Project Licence Appendix 1, 1.41			0	0	130,376,913
Water Services Regulation Authority Adjusted RCV (Current Prices) in Charging Year Yt-2	£, current prices (March of Charging Year T-2)	RCV at the end of Charging Year T-2 in then current prices			0	0	151,310,515
Notional Debt to RCV Ratio	%	As defined in Project Licence Appendix 1, 1.42			62.5%	62.5%	62.5%
Notional Net Debt in Charging Year Yt-2	£, current prices (March of Charging Year T-2)	RCV multiplied by Notional Debt to RCV ratio. See Project Licence Appendix 1 Part A 6.9			0	0	94,569,072
Net Debt in Charging Year Yt-3	£, current prices (March of Charging Year T-3)	Net Debt at the end of Charging Year T-3 as defined in Project Licence Appendix 1, 1.41			0	0	0
Water Services Regulation Authority Adjusted RCV (Current Prices) in Charging Year Yt-3	£, current prices (March of Charging Year T-3)	RCV at the end of Charging Year T-3 in then current prices			0	0	0
Notional Debt to RCV Ratio	%	As defined in Project Licence Appendix 1, 1.42			62.5%	62.5%	62.5%
Notional Net Debt in Charging Year Yt-3	£, current prices (March of Charging Year T-3)	RCV multiplied by Notional Debt to RCV ratio. See Project Licence Appendix 1 Part A 6.9			0	0	0
Applicable Change in Revenue RPI for Charging Year Yt					1.01	1.01	1.03
Applicable Change in Revenue RPI for Charging Year Yt-2					0.96	0.98	1.01
<b>A.1.4. Tax</b>	£	In line with the Project Licence, zero as the IP is not required to pay corporation tax or any other income-based tax. See Project Licence Appendix 1, Part A 1.4					0
<b>A.7. Under/Over Recovered Revenue Adjustment</b>	£	The revenue adjustment building block is to reconcile for under/over recovered Allowed Revenue in previous Charging Years. Not applicable for 2015 and 2016 Revenue Statements as adjustment applies in respect of Charging Year T-2, and 2015 was the first year the Allowed Revenue calculation was made. See Project Licence, Appendix 1, Part A.7					0
<b>A.8. Reconciliation adjustment</b>	£	Reconciliation for updated expenditure and inflation data to reflect realised actuals and updated forecasts. See Project Licence, Appendix 1, Part A 8					-5,415,076
Reconcile this year?	n/a	Revenue for a given Charging Year is subject to building block reconciliation adjustment where estimated or forecast expenditure or inflation inputs were used the last time that year's revenue was calculated. Defined as follows: 1 = yes, 0 = no			1	1	0
Time since most recent calculation	years	Represents the number of years since revenue was most recently calculated to feed into the NPV adjustment of the reconciliation adjustment.			1	1	0
Allowed Revenue (as at October 2016)	£	Allowed Revenue recalculated using updated expenditure and inflation data. Excludes the under/over recovered revenue adjustment and the reconciliation adjustment building blocks, as these building blocks are not subject to reconciliation. See BBRA Calculation 2015			8,669,904	19,763,649	
Allowed Revenue (as at October 2015)	£	Allowed Revenue as submitted in 2015 updated revised Revenue Statement. Excludes the under/over recovered revenue adjustment and the reconciliation adjustment building blocks, as these building blocks are not subject to reconciliation.			11,164,299	22,438,987	
Applicable Change in Revenue RPI (year in which original calculation was made)					1.01	1.01	
Applicable Change in Revenue RPI (current year)							1.03
Reconciliation amounts (unadjusted)	£	Adjustment calculated as difference between updated calculation and previous year's calculation, prior to NPV adjustment			-2,494,395	-2,675,337	
Reconciliation amounts (NPV-adjusted)	£	Adjustment calculated as difference between updated calculation and previous year's calculation, post NPV-adjustment using BWACC and Applicable Change in Revenue RPI			-2,612,773	-2,802,303	
<b>A.11. Additional Return on Capital Building Block</b>	£	Not applicable. To be added to calculation if building block becomes relevant (i.e. if Tideway makes an IAR Overrun Application to increase Allowable Project Spend above the Threshold Outturn). See Project Licence, Appendix 1, Part A 11					
<b>A.11. Additional Liquidity Building Block</b>	£	Not applicable. To be added to calculation if building block becomes relevant (i.e. if Tideway makes an IAR Overrun Application to increase Allowable Project Spend above the Threshold Outturn). See Project Licence, Appendix 1, Part A 11					

## Updated revised Revenue Statement - 2017/18

Submitted to Ofwat on 15/12/16

<i>£, nominal</i>	Year preceding Prior Charging Year 2014/15	Prior Charging Year 2015/16	Current Charging Year 2016/17	Forthcoming Charging Year 2017/18
Allowed Revenue		0	33,603,285	28,559,132
Amounts received from TWUL	0	0		



## Statement of calculation

### Introduction

The following section sets out how Tideway's Allowed Revenue calculation for the charging year 2017/18 has been made. It builds on Tideway's 2015 Revenue Statement which was reviewed by Tideway, KPMG and Ofwat.

A number of detailed modelling assumptions have been made in interpreting Appendix 1 of the Project Licence. The Licence has been written to provide the basis of a revenue submission in a typical year. The 2015 submission was atypical as it covered two years. As such, a number of assumptions were required to ensure the calculation was in line with the spirit and intent of the Licence, some of which continue to apply in the 2016 submission. For the 2016 Revenue Statement, a small number of additional clarifying assumptions have been made in relation to the reconciliation of prior years' revenue for updated expenditure and inflation information, for example where the licence does not specify formulae. These assumptions, as set out in the table below, have been agreed with Ofwat prior to submission (email received from Andy Chesworth dated 16/10/2016).

Sheet	Issue	Resolution
Revenue Statement 2016	How to present First and Second Charging Year Allowed Revenue on the Revenue Statement.	Both First and Second Year Allowed Revenue are added and shown as a single figure for the "Current Charging Year" on the Revenue Statement. Both years of Allowed Revenue were billed by Thames Water in 2016/17, and will need to be treated as a single year of Allowed Revenue for the purposes of revenue reconciliation in 2018/19 and overpayment provisions in licence and Revenue Agreement.
BBRA Inputs 2015	Applying the definition of Applicable Change in Revenue RPI for the First Charging Year seems to suggest referring to November 2014 RPI. However, this revenue was billed in 2016/17.	Consistent with the financial model used as part of the IP procurement process and the 2015 Revenue Statement, apply November 2015 RPI for the Applicable Change in Revenue RPI for the First Charging Year.
BBRA Inputs 2015, Inputs 2016	The 2014/15 RPI Adjustment Factor refers to "the percentage movement in the RPI (All Items) index as published by ONS for the period April to September in the calendar year..." However, if the index values for April and September are taken, this only picks up 5 months of inflation. Together with the other elements of the formula, this results in an underestimate of inflation for the Charging Year.	Interpret the movement for the period April to September as the movement between the March and September index values, which ensures April inflation is also picked up.
BBRA Calculation 2015	In order to reconcile Allowed Revenue calculated in prior years for updated inflation, it is not appropriate to use the 2014/15 RPI Adjustment Factor defined in Tideway's licence as more up to date information is available (i.e. a further year of actual inflation data which can be used to replace the forecast).	Use approach consistent with definition of 2014/15 RPI Adjustment Factor but with a further year of actual inflation, so that actuals are used up to September of Yt. This is equivalent to applying the 2014/15 RPI Adjustment Factor values as calculated for the Third Charging Year Allowed Revenue calculation, and ensures the latest actual RPI data is taken into account.
Calculation 2016	Appendix 1, Part A 8 of Tideway's licence requires a reconciliation adjustment of a number of building blocks for updated values. The licence requires that the adjustment is calculated on a net present value neutral basis using the BWACC, but it does not specify the adjustment formulaically or specify the means of adjusting for inflation.	Apply a net present value adjustment in nominal terms by multiplying the reconciliation by (1+BWACC) and the ratio between the Applicable Change in Revenue RPI of the two Charging Years. This adjustment will be applied to a reconciliation of a value calculated in the prior year. The formulae used to perform this reconciliation are as set out in this statement of calculation.
Calculation 2016	The Annual Reference Point for the Financing Cost Adjustment for the First Charging Year would be prior to the Base Reference Point if interpreted literally.	Assume Annual Reference Point for First Charging Year = Base Reference Point = 31 March 2015
Calculation 2016	Appendix 1, Part A 7 of Tideway's licence requires an under/over recovered revenue adjustment to be made to Allowed Revenue in the Third Charging Year and each Charging Year thereafter. However, as Tideway's Allowed Revenue for the First Charging Year was not billed until the Second Charging Year (due to the timing of licence award), this would mean a material reconciliation for revenue that will continue to be received during the course of the Second Charging Year.	In line with the spirit and intent of the licence, do not calculate an under/over recovered revenue adjustment to be made to Allowed Revenue in the Third Charging Year. The under/over recovered revenue adjustment in the Fourth Charging Year will cover Allowed Revenue from both the First and Second Charging Years.
Calculation 2016	Additional Return on Capital and Additional Liquidity Building Blocks may never become relevant (i.e. these building blocks may only become relevant if Tideway applies for an Increase in Allowed Revenue (IAR).	Exclude calculations for Additional Return on Capital and Additional Liquidity until there is a non-negligible probability that these will be required.
Calculation 2016	Reconciliation Adjustment (A 8) states that Financing Cost Adjustment should be subject to reconciliation, but none of the elements of this calculation are forecast.	Leave a placeholder for reconciliation of the Financing Cost Adjustment should this, for any reason, become relevant in future, but exclude from calculation at present.

The NPV adjustment for the Revenue Adjustment building block will be discussed and agreed with Ofwat in advance of this building block becoming active in the calculation of Allowed Revenue for the 2018/19 Charging Year.

### Key to Charging Years

Year	Charging Year	Full description
2015/16	Y1	First Charging Year
2016/17	Y2	Second Charging Year
2017/18	Y3	Third Charging Year
2018/19	Y4	Fourth Charging Year

### Summary

The inputs to this calculation, and the sources of these inputs, are set out on the "Inputs 2016" and "BBRA Inputs 2015" sheets of this workbook. The "BBRA Inputs 2015" sheet isolates the inputs used to reconcile the 2015 calculation of Allowed Revenue for the First and Second Charging Years for updated cost and inflation data. These inputs are consistent with those set out on "Inputs 2016".

Tideway Allowed Revenue (t) =	Return on capital + Liquidity + Operating expenditure + Financing cost adjustment + Tax +/- Revenue adjustment +/- Building block for reconciliation adjustment + Additional return on capital + Additional liquidity																
Tideway Allowed Revenue (Third Charging Year)	=	20.2	+ 13.8	+	0	+	0	+	0	+	0	+	-5.4	+	0	+	0
	=	28.6															

The calculation of each of these elements is described below.

### Inputs

The inputs for the Allowed Revenue calculation are set out in "Inputs 2016" and "BBRA Inputs 2015", along with source information and accompanying notes.

In line with Appendix 1 A8 of Tideway's licence, the Expenditure Forecast is that most recently verified by the Independent Technical Assessor (verified 19/10/2016). It represents the company's latest forecast of cash expenditure over 2016/17, 2017/18 and 2018/19.

### Return on Capital

The Return on Capital building block allows Tideway to earn a return on capital in relation to the forecast average RCV in the Charging Year in question. Average RCV is calculated using annual actual, estimated and forecast allowable project spend, as shown in the table below.

£m, 2014/15 prices	Y1	Y2	Y3	Y4
Opening RCV	0.0	148.7	523.9	1,040.0
Allowable Project Spend	148.7	375.1	516.2	550.6
Closing RCV	148.7	523.9	1,040.0	1,590.6
Average RCV	74.4	336.3	781.9	1,315.3

For the Third Charging Year, this building block is calculated as follows:

Return on Capital =	Average RCV in Y3 * Bid WACC * Applicable Change in Revenue RPI for the Third Charging Year				
=	781.9	*	2.497%	*	<u>265.5</u>
					256.7
=	20.2 (£m)				

### Liquidity

The Liquidity building block allows Tideway a liquidity allowance (return on capital) in relation to the incremental average RCV in the year following the Charging Year in question.

For the Third Charging Year, this building block is calculated as follows:

$$\begin{aligned} \text{Liquidity} &= (\text{Forecast average RCV in year 4} - \text{Average RCV in year 3}) * \text{Bid WACC} * \text{Applicable Change in Revenue RPI for the Third Charging Year} \\ &= 533.4 * 2.497\% * \frac{265.5}{256.7} \\ &= 13.8 \text{ (£m)} \end{aligned}$$

**Operating Expenditure (opex)**

In line with Tideway's licence, the Opex building block is zero as all costs are accounted for as capital expenditure.

**Financing Cost Adjustment**

The Financing Cost Adjustment building block is intended to protect against movements in the market cost of debt, recognising that Tideway's Bid WACC will apply for a much longer period than the standard five year control period for a WaSC or WoC.

The Financing Cost Adjustment for a given year is calculated as follows:

$$\text{Financing Cost Adjustment (t)} = \frac{(\text{Net Debt (t-2)} - \text{Net Debt (t-3)}) * \text{Market Cost of Debt Adjustment Factor (t)} * (1 + \text{BWACC})^2 * \text{Applicable Change in Revenue RPI (t)}}{\text{Applicable Change in Revenue RPI (t-2)}}$$

where Market Cost of Debt Adjustment Factor (t) =

- i) if the difference between the BRP and the ARP on any ARP Calculation Date is +/- 50 bps, the market cost of debt adjustment will be 0
- ii) if the difference between the BRP and the ARP is between (+/-) 51 bps and 100 bps, the market cost of debt adjustment factor will be equal to 50% of the amount by which such difference exceeds 50bps
- iii) if the difference between the BRP and the ARP is greater than +/- 100 bps, the market cost of debt adjustment factor will be equal to the amount by which such difference exceeds 75 bps

BRP = the 12 months' trailing average of the Financing Cost Adjustment Index Yield as at 31 March 2015  
 ARP = the 12 months' trailing average of the Financing Cost Adjustment Index Yield as at 31 March of Charging Year t-2

where the Financing Cost Adjustment Index Yield =  $\frac{(1 + \text{iBoxx BBB UK non-financials with 10+ year maturity})}{(1 + \text{spot implied inflation rates for 10 year maturity published by the Bank of England})}$  -1

Note that where the ratio between Net Debt and Ofwat-stated RCV (current prices) is higher than the notional debt to RCV ratio, Net Debt will be deemed to equal the notional debt to RCV ratio multiplied by the Ofwat-stated RCV in current prices.

The Financing Cost Adjustment Building Block for each Charging Year is the sum of the Financing Cost Adjustment for that Charging Year and all previous Charging Years, to reflect the build-up of the market cost of debt protection over time.

There was no Financing Cost Adjustment in respect of the Allowed Revenue for the First or Second Charging Years, as in both cases, Tideway did not exist in Charging Year t-2 and t-3, and so did not hold any Net Debt at this time.

For the Third Charging Year, this building block is calculated as follows:

$$\begin{aligned} \text{Financing Cost Adjustment (year 3)} &= \frac{(\text{Net Debt (year 1)} - \text{Net Debt (year 0)}) * \text{Market Cost of Debt Adjustment Factor (year 3)} * (1 + \text{BWACC})^2 * \text{Applicable Change in Revenue RPI (year 3)}}{\text{Applicable Change in Revenue RPI (year 1)}} \\ &= \frac{(-130.376913 - 0) * 0 * (1 + 0.02497)^2 * \frac{1.03}{1.01}}{1.01} \\ &= 0 \end{aligned}$$

where the Market Cost of Debt Adjustment Factor (year 3) = 0 based on a BRP of 1.30% and an ARP of 1.46%, which fall within the +/- 50 bps band

$$\begin{aligned} \text{Financing Cost Adjustment building block} &= \text{Financing Cost Adjustment (year 1)} + \text{Financing Cost Adjustment (year 2)} + \text{Financing Cost Adjustment (year 3)} \\ &= 0 + 0 + 0 \end{aligned}$$

**Tax**

In line with Tideway's licence, the tax building block is zero as Tideway is not required to pay corporation tax or any other income-based tax.

**Revenue Adjustment**

The revenue adjustment building block is to reconcile for under/over recovered Allowed Revenue in previous Charging Years.

In line with the assumptions set out above, there is no revenue adjustment for the Allowed Revenue in the Third Charging Year, as Thames Water only started billing Tideway's revenue in the Second Charging Year (2016/17).

This building block will apply from the 2018/19 Charging Year onwards.

**Building Block Reconciliation Adjustment (BBRA)**

A reconciliation adjustment applies for the Return on Capital, Liquidity, Opex, Financing Cost Adjustment, Tax, Additional Return on Capital and Additional Liquidity building blocks.

The reconciliation is calculated on a net present value neutral basis, using the Bid WACC as the discount factor. It reconciles for actual values realised since the previous calculation of the Allowed Revenue for a particular year, and updated forecasts. In practice, this means reconciling for updated expenditure and inflation.

This building block applies for the first time in the calculation of 2017/18 Allowed Revenue, and reconciles the 2015/16 and 2016/17 Allowed Revenue, both of which were calculated in the 2015 Revenue Statement.

It uses the company's latest forecast of expenditure as described in the "Inputs" section above. The reasons for the difference between 2015/16 actual expenditure and the inputs used for the 2015 Revenue Statement is set out in Tideway's Annual Report 2015/16 (see notes to tables 5A and 5B, p 108-109). Similar information will be provided for 2016/17 in the Annual Report 2016/17, once the full year of actual expenditure has been realised.

	Allowed Revenue	
	2015/16	2016/17
Allowed Revenue - as calculated in 2015 Revenue Statement	11.2	22.4
Allowed Revenue - as recalculated for 2016 Revenue Statement	8.7	19.8

The table above shows the Allowed Revenue for 2015/16 and 2016/17 as calculated in the 2015 Revenue Statement, and recalculated for this 2016 Revenue Statement.

The Allowed Revenue figures set out above exclude the building block reconciliation adjustment (BBRA) and revenue adjustment (RA) building blocks, which are not subject to reconciliation (and which were in any case zero for 2015/16 and 2016/17 Allowed Revenue).

The building block reconciliation is made on a net present value neutral basis using the Bid WACC as a discount factor and adjusting for inflation using RPI. This gives the following calculation:

$$\begin{aligned} \text{Building block reconciliation adjustment (Third Charging Year)} &= \frac{(\text{2015/16 Allowed Revenue [2016 calculation]} - \text{2015/16 Allowed Revenue [2015 calculation]}) * (1 + \text{Bid Wacc}) * \text{Applicable Change in Revenue RPI (year 3)} + (\text{2016/17 Allowed Revenue [2016 calculation]} - \text{2016/17 Allowed Revenue [2015 calculation]}) * (1 + \text{Bid Wacc}) * \text{Applicable Change in Revenue RPI (year 3)}}{\text{Applicable Change in Revenue RPI (year 1)}} \\ &= \frac{(8.7 - 11.2) * (1 + 0.02497) * \frac{1.03}{1.01} + (19.8 - 22.4) * (1 + 0.02497) * \frac{1.03}{1.01}}{1.01} \\ &= -5.4 \text{ (£m)} \end{aligned}$$

The sections below set out the recalculation of the 2015/16 and 2016/17 Allowed Revenue.

**Return on Capital**

**First Charging Year**

Return on Capital = Average RCV in First Charging Year \* Bid WACC \* Applicable Change in Revenue RPI for the First Charging Year

$$\begin{aligned} &= 74.4 * 2.497\% * \frac{259.8}{256.7} \\ &= 1.9 \text{ (£m)} \end{aligned}$$

**Second Charging Year**

Return on Capital = Average RCV in Second Charging Year \* Bid WACC \* Applicable Change in Revenue RPI for the Second Charging Year

$$\begin{aligned} &= 336.3 * 2.497\% * \frac{259.8}{256.7} \\ &= 8.5 \text{ (£m)} \end{aligned}$$

**Liquidity**

First Charging Year	Second Charging Year
Liquidity = (Forecast average RCV in year 2- Average RCV in year 1) * Bid WACC * Applicable Change in Revenue RPI for the First Charging Year	Liquidity = (Forecast average RCV in year 3 - Average RCV in year 2) * Bid WACC * Applicable Change in Revenue RPI for the Second Charging Year
= 261.9 * 2.497% * $\frac{259.8}{256.7}$	= 445.6 * 2.497% * $\frac{259.8}{256.7}$
= 6.6 (£m)	= 11.3 (£m)

**Opex**  
 In line with Tideway's licence, the Opex building block is zero as all costs are accounted for as capital expenditure. Therefore, no reconciliation is required.

**Financing Cost Adjustment**  
 The Financing Cost Adjustment does not rely on any forecast inputs and therefore a reconciliations for actuals and updated forecasts is not required.

**Tax**  
 In line with Tideway's licence, the tax building block is zero as Tideway is not required to pay corporation tax or any other income-based tax.

**Additional Return on Capital and Additional Liquidity**  
 These building blocks will only apply if spend exceeds the Threshold Outturn and Tideway has made an IAR Overrun Application. Therefore this building block is zero for the purposes of this calculation.

**Recalculated Allowed Revenue**  
 Tideway Allowed Revenue (t) = Return on capital + Liquidity + Operating expenditure + Financing cost adjustment + Tax + Additional return on capital + Additional liquidity  
 (excludes the building block reconciliation adjustment and revenue adjustment building blocks, which are not subject to reconciliation)

The calculation of these building blocks is as described above. This results in the following recalculated Allowed Revenue for 2015/16 and 2016/17:

Tideway Allowed Revenue (First Charging Year)	=	1.9	+ 6.6	+	0	+	0	+ 0	+	0	+	0
	=	8.5										
Tideway Allowed Revenue (Second Charging Year)	=	8.5	+ 11.3	+	0	+	0	+ 0	+	0	+	0
	=	19.8										

The Allowed Revenue for the First Charging Year is subject to an NPV adjustment as follows:  

$$\text{Adjusted Allowed Revenue (First Charging Year)} = \text{Allowed Revenue (First Charging Year)} * (1 + \text{BWACC})^{(0.5 + \text{PD}/2)}$$
 where PD is the proportion of the First Charging Year between Licence Award and the end of the First Year  

$$= 8.5 * (1+0.02497)^{(0.5+(221/366)/2)}$$

$$= 8.7$$

**Additional Return on Capital**  
 The Additional Return on Capital building block will only apply if spend exceeds the Threshold Outturn and Tideway has made an IAR Overrun Application. Therefore this building block is zero for the purposes of this calculation.

**Additional Liquidity**  
 The Additional Return on Capital building block will only apply if spend exceeds the Threshold Outturn and Tideway has made an IAR Overrun Application. Therefore this building block is zero for the purposes of this calculation.