

**Consultation on the regulatory framework for the infrastructure provider that will deliver the Thames Tideway Tunnel project**

**Annex 2: draft Project Licence explanatory memorandum**

## About this document

While the Thames Tideway Tunnel is being built and commissioned, the infrastructure provider (IP) will benefit from a bespoke regulatory framework that will allow it to start generating revenues when construction begins. The provisions in appendix 1 to the Project Licence will underpin this regulatory framework.

While typically in the UK water industry revenues of incumbent water and sewerage undertakers would be determined by Ofwat on a five-yearly look forward basis, in the case of the IP, there are three different stages – construction, initial operation and long-term operation – with different allowed revenue calculation methodologies applying to each stage.

In certain circumstances, the revenues of the IP will be subject to adjustments. On the one hand, there will be adjustments intended to mitigate certain risks the IP may be exposed to during the construction period – such as adjustments to protect against revenue under-recovery due to doubtful debt or movements in market cost of debt. On the other hand, there will be adjustments intended to incentivise the IP to complete the Project on time and on budget.

The purpose of this explanatory memorandum is to enable stakeholders to better understand the provisions of appendix 1 and appendix 2 to the Project Licence. This explanatory memorandum is not intended to be a substitute for understanding the provisions of those appendices. If this note contradicts any element of the Project Licence, then the Project Licence shall take precedence.

For context, this explanatory memorandum also provides an overview of the main body of the Project Licence.

Please note that Government has put forward a proposal to amend the SIP Regulations to enable Ofwat to include in a Project Licence provisions allowing price determinations to be referred to the Competition and Markets Authority (CMA). Once these amendments are made, Ofwat intends including in the Project Licence provisions allowing the IP to refer certain determination decisions to the CMA. For this reason, the relevant provisions in appendix 1 and appendix 2 are in square brackets to indicate that they are provisional pending the SIP Regulation amendments coming into effect. Similarly, in this explanatory memorandum references to the IP having the ability to refer matters to the CMA are in square brackets.

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### Correction

Section references on pages 3, 5, 12, 15, 16 and 24 were corrected on 31 October 2014.

## Overview of appendix 1: Calculation of allowed revenue

### 1. Introduction

- 1.1 Appendix 1 comprises two parts. One part (Part A) sets out the conditions for calculating the IP's allowed revenues during the construction period, which will run up until (and including) 31 March following the Post Construction Review. The other part (Part B) sets out the conditions for calculating the IP's allowed revenues during the initial operational period, which will run up until (and including) 31 March following the First Periodic Review, unless the Post Construction Review and First Periodic Review are held concurrently (see paragraph 4 below). Part B also sets out the mechanics for determining the regulatory capital value of the IP that will apply during the long-term operational period, as well as incentives upon the IP to complete the Project on time and on budget.
- 1.2 Throughout appendix 1 prices are expressed either in real or nominal values, with indexation and deflation mechanics being applied in certain circumstances such that calculations are always done on a like-for-like basis. To achieve this, appendix 1 provides for all calculations to be done in [2010-11] prices. For this reason, for the purposes of this explanatory memorandum, all values should be assumed to be expressed in [2010-11] prices, unless otherwise specified. However, addendum B hereto provides a summary of the inflation and deflation principles that apply to different values referred to in appendix 1 to the Project Licence.
- 1.3 For reasons set out in the accompanying consultation document, Ofwat does not intend modifying appendix 1 except with the agreement of the IP.

### 2. Allowed revenues during the construction period

#### 2.1 Calculation of allowed revenues during the construction period

- (a) The allowed revenues during the construction period (that is, prior to 1 April following the Post Construction Review) are calculated by reference to a number of building blocks, which is a well-established method for calculating revenues in price reviews in the water industry in England and Wales. The building blocks are as follows.

$(\text{RoC} + \text{Li} + \text{Op} + \text{FCA} + \text{Tax}) \pm \text{RA} \pm \text{BBRA} + \text{ARoC} + \text{ALi}$

- (b) These building blocks can broadly be grouped into the following categories.
- (i) Building blocks that provide the IP with its basic revenue – these include the Return on Capital (RoC) building block and the Liquidity (Li) building block.
  - (ii) Building blocks that are assumed to be zero, but may increase in the event of a change in law or accounting principles, thus providing the IP with certain change in law and accounting policy protection – these include the Opex (Op) building block and the Tax building block.
  - (iii) Building blocks that are intended to mitigate certain finance risks the IP may be exposed to during construction – these include the Financing Cost Adjustment (FCA) building block and the Revenue Adjustment (RA) building block.
  - (iv) Building blocks that provide for a true-up mechanism to take account of the difference between forecast or estimated values and the actual outturn values – this includes the building block for reconciliation adjustments (BBRA).
  - (v) Building blocks that provide the IP with additional revenues that relate to cost overruns above a pre-determined threshold (termed the Threshold Outturn) – these include the Additional Return on Capital (ARoC) building block and the Additional Liquidity (ALi) building block, both of which are subject to a separate Ofwat determination.

## 2.2 Revenue building blocks

- (a) The revenue building blocks are intended to provide the IP with a return on capital and liquidity allowance in each Charging Year during the construction period. The return on capital is calculated by reference to the BWACC and the RCV. The RCV represents the cumulative costs (termed the Allowable Project Spend) incurred by the IP up to the start of the Charging Year in question, as well as forecast to be incurred by the IP in the Charging Year in question. The average RCV for a Charging Year is then multiplied by the BWACC to calculate the RoC building block. This building block therefore provides a return on the costs that have been incurred and funded by the IP.

- (b) The liquidity building block is designed to recognise the fact that the IP may need to draw down on funding for future spend as well as current spend because of the liquidity requirements it faces. It therefore provides a return on the following Charging Year's expected spend to compensate for the finance cost of drawing down funding early to meet the liquidity requirements. It is calculated by reference to the BWACC and the difference between the forecast average RCV for the Charging Year-ahead and the average RCV in the Charging Year in question. This effectively means that the IP earns a return on capital on its one year forward RCV. See below for a discussion on Allowable Project Spend.
- (c) The BWACC will be used in the above calculations throughout the construction period until 31 March following the Post Construction Review, but the BWACC will only apply in respect of capital costs up to the Threshold Outturn. Note that the return on capital earned by the IP during the construction period may be subject to a penalty for delay in achieving Acceptance, administered retrospectively at the Post Construction Review. This steps down the BWACC for any delay in Acceptance beyond the Planned System Acceptance Date (see paragraph 3.3 (j) – (q) below for further details on the step down).

### **Allowable Project Spend**

- (d) Allowable Project Spend represents the cumulative costs incurred or to be incurred by the IP in connection with the Project prior to the Post Construction Review up to the Threshold Outturn (assumed to be a P50 estimate plus 30%), with any approved additional costs above the Threshold Outturn being treated as Additional Allowable Project Spend (as discussed below in paragraph 2.3 (b)).
- (e) Equity investors in the IP will be required to fund the Allowable Project Spend (that is, up to Threshold Outturn). However, they will not be obliged to fund any additional capital costs above the Threshold Outturn, but will have the option to do so.

### **Excluded Project Spend**

- (f) It is expected that all costs to be incurred by the IP prior to the Post Construction Review will be included in the RCV except for a pre-defined set of costs which will be excluded from the Allowable Project Spend. The following costs are defined as Excluded Project Spend:

- (i) financing costs, fees and expenses;
- (ii) any operating costs that are not treated by Ofwat as capital expenditure; however, it is expected that all costs will be treated as capital expenditure during construction and therefore these will be zero during this period;
- (iii) tax (other than non-recoverable tax incurred in respect of the Allowable Project Spend or the Additional Allowable Project Spend)<sup>1</sup>;
- (iv) any equity distributions, including any payment of dividends, bonus issues, return of capital, fees, interest, principal or other amounts (by way of loan, loan repayment or otherwise) (in cash or in kind) to any person deemed to be related to equity; note that payments made pursuant to management services and other arrangements entered into in connection with the Project on bona fide arm's length terms in the ordinary course will be included in the allowed capital costs;
- (v) any expenditure funded by any amount payable by insurers or reinsurers;
- (vi) any expenditure incurred due to the fraud, wilful misconduct or gross negligence of the IP, or fines that the IP incurs;
- (vii) costs which are not justified by the IP's accounts and records; and
- (viii) costs which should not have been paid by the IP to its contractors or suppliers in accordance with their contracts.

### **2.3 Additional revenue building blocks**

- (a) If the IP predicts that its capital costs in connection with the Project will exceed the Threshold Outturn, Ofwat may permit the IP to earn additional return on capital and receive an additional liquidity allowance in respect of its additional costs (such costs are termed the Additional Allowable Project Spend). The additional return on capital and the additional liquidity allowance would be calculated in a similar manner to the basic revenues received by the IP, save that a real weighted average cost of capital

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<sup>1</sup> For example, a landfill tax might be a legitimate project cost that was non-recoverable and this would not constitute Excluded Project Spend.

specific to this additional spend, as determined by Ofwat at the relevant time, would be applied to the additional costs above the Threshold Outturn that are allowed onto the RCV rather than BWACC. Also, as with the Allowable Project Spend, the Excluded Project Spend would not be treated as Additional Allowable Project Spend.

### **Additional Allowable Project Spend**

- (b) In the event that the costs necessary to complete the Project are forecast to exceed the Threshold Outturn (termed a Predicted Overrun), the IP may apply to Ofwat to approve Additional Allowable Project Spend in excess of the Threshold Outturn in order to enable the IP to finance the Predicted Overrun. Ofwat will then determine whether to approve the Additional Allowable Project Spend and the rate of return that will apply to it. It will determine the Allowable Project Spend using the Ex Ante Approach, unless the IP has opted for the Ex Post Approach as part of its application and Ofwat has agreed to use that approach.
- (c) The Ex-Ante Approach means that a structurally similar framework to that which applies when calculating the return on capital and liquidity allowance in respect of costs below the Threshold Outturn would apply to calculating the return on capital and liquidity allowance in respect of capital costs above the Threshold Outturn (up to a cap set by Ofwat). However, a different incentive framework may apply to such additional costs, as determined by Ofwat, to mitigate the risk to customers of a further overrun of costs.
- (d) Unlike the Ex Ante Approach, under the Ex Post Approach Ofwat would not impose any cap on the additional costs of the IP. Instead, at the Post Construction Review, Ofwat would determine what additional costs incurred by the IP would be allowed, adjusted or disallowed in the RCV following the Post Construction Review on the basis of what is economic and efficient expenditure. This determination will be made in accordance with the policies and guidelines of Ofwat in place at the time.
- (e) Both approaches assume that Ofwat will determine the real weighted average cost of capital specific to the Project that will apply in respect of the Additional Allowable Project Spend. This return on capital would only apply to the additional spend above threshold, with the BWACC continuing to apply to the costs incurred below Threshold Outturn.

- (f) There are a number of factors that Ofwat will take into account when making a determination on Additional Allowable Project Spend. In particular, Ofwat will (as applicable):
  - (i) determine what Additional Allowable Project Spend and cap thereon (if applicable) is appropriate and reasonable in all the circumstances taking into account Ofwat's policies and guidelines in place at the time;
  - (ii) determine whether any of the Additional Allowable Project Spend could be or could have been avoided by prudent management action; and
  - (iii) have regard to the views of the Independent Technical Assessor.
- (g) Ofwat has a three-month period from application to notify the IP of its decision on the approach to Additional Allowable Project Spend[, failing which the IP may require Ofwat to refer the matter to the CMA for determination]. [Equally, if the IP disputes any determination by Ofwat regarding its decision on the approach to Additional Allowable Project Spend, IP may require Ofwat to refer the matter to the CMA for determination.]
- (h) The above approach (in paragraphs (b) to (g)) will also apply in relation to any further cost overruns above the new cap set by Ofwat.

## **2.4 Opex and Tax building blocks**

- (a) It is expected that the Opex (Op) building block will be zero as all operating costs incurred or to be incurred during the construction period will be treated as capital costs and included in the RCV. Should this not be the case due to a change in generally accepted accounting principles (or IFRS) and policies adopted in the water industry and a determination by Ofwat, the IP will be able to recover its operating costs that cannot be capitalised through the Opex building block (with an adjustment to the Annual Base Case Forecasts as set out in 2.8(c)). The recovery will be based on actual efficient operating costs incurred by the IP (if already incurred by the IP) and forecast efficient operating costs to be incurred by the IP in the year-ahead.

- (b) It is also expected that the Tax building block will be zero, unless there is a change in tax law or in generally accepted accounting principles (or IFRS)<sup>2</sup> and policies adopted in the water industry which results in the IP being required to pay an amount in respect of corporation tax or other income based tax that the IP would not have otherwise been required to pay. In this case, the IP will, through the Tax building block, be compensated for its increased income tax liabilities net of any income tax credit or refund to which the IP is or may be entitled to.

## 2.5 Financial risk building blocks

- (a) The Financing Cost Adjustment is designed to provide revenue compensation to the IP for movements in the underlying market real cost of debt outside a pre-defined cap and collar. This adjustment for financing costs will depend on the difference between the base reference point for the market cost of debt (which is the end of the last quarter before the date of the Project Licence) and the market cost of debt in the relevant year. This is subject to a floor and ceiling, so where the difference is:

(A) +/-50bps – there will be no adjustment;

(B) +/-51bps and +/-100bps – there will be an adjustment equal to 50% of this difference; and

(C) +/-101bps or above – there is an adjustment equal to 100% of this difference.

Each of the above adjustments will be aggregated to generate a single adjustment factor. So, if the difference between the base reference point for the market cost of debt and the market cost of debt in the relevant year is 130bps, in respect of the first 50bps where will be no adjustment, the next 50bps will be subject to a 50% adjustment (that is, 25bps) and the remaining 30bps will be subject to a 100% adjustment (that is, 30bps).

- (b) Aggregation of these would generate a single adjustment factor of 55bps (that is, 25bps + 30bps). This adjustment factor will then be applied to a proportion (62.5%) of the forecast level of capital costs that are expected to be incurred in that year to ascertain the value of the adjustment for that

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<sup>2</sup> International Financial Reporting Standards.

year. This proportion is intended to represent an estimate of the amount of the RCV that will be funded by debt. The overall adjustment to allowed revenue in a year will be the summation of that year's adjustment value and previous years' adjustment values.

- (c) The benchmark index is a 50/50 mix of reference rates for the costs of relevant A rated and BBB rated debt issuances over the previous two years (as judged using iBoxx indices for UK corporate non-financials with a 10+ year maturity). The index for a particular Charging Year will be based on the index value as at 30 September for the previous Charging Year (being the latest available value when the allowed revenue calculation is carried out).
- (d) The IP's allowed revenues for each Charging Year will be collected by TWUL by adding those revenues to the wastewater charges TWUL levies on its customers. To the extent those revenues have been recovered by TWUL from its customers, it will pass them through to the IP under a revenue agreement to be entered into between the IP and TWUL. This creates the risk of doubtful debts from customers for the IP. The Revenue Adjustment (RA) building block mitigates this risk by allowing any amounts under-recovered through TWUL to be added to IP's revenues with a two-year lag. So, if in Charging Year  $t$  the IP was entitled to allowed revenues equal to £1,000,000, but it was only able to recover £950,000 from TWUL due to non-payment by TWUL's customers, the under-recovered amount of £50,000 would be added to the IP's revenues for Charging Year  $t+2$ . Similarly, the Revenue Adjustment building block allows for any amount of over-recovery to be subtracted from the IP's revenues with a two-year lag. Either way, this revenue adjustment will apply from the third Charging Year onwards (given the two-year lag).

## **2.6 Building block for reconciliation adjustments**

- (a) The building block for reconciliation adjustment (BBRA) effectively provides for a true-up mechanism such that the Return on Capital building block, the Liquidity building block, the Opex building block, the Financing Cost Adjustment building block and the Tax building block for the previous Charging Year are adjusted to take account of the difference between the estimated or forecast costs originally used to calculate those building blocks

and the actual values incurred for those building blocks<sup>3</sup>. This adjustment will be calculated on a net present value neutral basis using the BWACC as the discount factor and will be applied from the following 1 April.

## 2.7 Timing of revenue calculations

- (a) Subject to the exceptions discussed below, the allowed revenue for each Charging Year during the construction period will be calculated in the immediately preceding Charging Year and notified by the IP to TWUL in accordance with the Project Licence. TWUL will then collect the IP's revenues and pass through the collected amounts to the IP during the Charging Year in question in accordance with the revenue agreement described above.
- (b) Allowed revenues for the first Charging Year will be calculated during the first Charging Year but will only be payable in the second Charging Year together with the allowed revenues for the second Charging Year. The reason for this is that by the time the Project Licence has been awarded, TWUL will not have been able to include the IP's allowed revenues for the first Charging Year in the calculation of the wastewater charges levied by TWUL on its customers in respect of the first Charging Year.
- (c) The allowed revenues for the second Charging Year may be subject to a similar delay if the allowed revenue for the second Charging Year has not been calculated and notified to TWUL by [the first business day following 1 January] of the first Charging Year. In this case, the calculation and notification to TWUL of allowed revenue for both the first and second Charging Years will be delayed until the second Charging Year with payments of the allowed revenue for those Charging Years being made in the third Charging Year.
- (d) The revenues that are delayed in this way will be subject to a net present value adjustment for the period of delay, calculated based on the BWACC in order to take account of the value of this delay.

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<sup>3</sup> To the extent that actual costs incurred are already incorporated into the Opex building block, these costs will not be subject to a cost adjustment.

## 2.8 Annual Base Case Forecasts and adjustments

- (a) The IP is incentivised to deliver the Project on budget. This is achieved through an incentive mechanism discussed in paragraph 3.3 (a) – (i) below, which compares actual expenditure of the IP against the base case forecasts.
- (b) The cost forecasts are based on the Annual Base Case Forecasts set out in annex A to appendix 1 and represent a P50 estimate of the costs to be incurred by the IP in each Charging Year necessary to complete the Project and achieve Acceptance. The Original Base Case Forecast represents the summation of all Annual Base Case Forecasts.

### Adjustments due to change in accounting principles

- (c) Should there be a change in generally accepted accounting principles (or IFRS) and policies adopted in the water industry and a determination by Ofwat that results in the IP not being able to capitalise an operating cost, the Annual Base Case Forecasts for the affected Charging Years will be subject to an adjustment by Ofwat to take account of the decreased expenditure of the IP included in the RCV during those Charging Years.

### Other adjustments

- (d) The Annual Base Case Forecasts are also subject to adjustment in a number of circumstances referred to as Base Case Adjustment Trigger Events. A Base Case Adjustment Trigger Event is where there is:
  - (i) a change in the material scope of the Project;
  - (ii) an application to the IP of any legal requirement or any change to any legal requirement which applies to the IP; or
  - (iii) a change in the material technical requirements of the Project,in each case, which (having taken into account any savings resulting from it) is likely to result in the costs to be incurred by the IP in connection with the Project increasing or decreasing by more than £10 million (indexed).
- (e) If a Base Case Adjustment Trigger Event (together with all previous Base Case Adjustment Trigger Events and associated savings) is likely to result

in the IP's costs increasing or decreasing by more than 2% of the Original Base Case Forecast, the Annual Base Case Forecasts for the affected Charging Years may be adjusted, as determined by Ofwat.

- (f) In making its determination to adjust the Annual Base Case Forecasts, Ofwat will:
- (i) determine what increased or decreased (as applicable) capital costs are appropriate and reasonable for the IP to incur in all the circumstances taking into account the relevant Base Case Adjustment Trigger Event and all previous Base Case Adjustment Trigger Events;
  - (ii) (if applicable) determine whether any of that increased costs could be avoided by prudent management action;
  - (iii) determine what savings (if any) the IP is reasonably likely to make as a result of the relevant Base Case Adjustment Trigger Event and all previous Base Case Adjustment Trigger Events; and
  - (iv) have regard to the views of the Independent Technical Assessor.
- (g) Ofwat has a three-month period from application by the IP to notify the IP of its decision on adjusting the Annual Base Case Forecasts[, failing which the IP may require Ofwat to refer the matter to the Competition and Markets Authority for determination].

### **3. Allowed revenues during the initial operational period**

#### **3.1 Calculation of allowed revenues during the initial operational period**

- (a) The allowed revenue during the initial operational period from 1 April following the Post Construction Review until 31 March following the First Periodic Review will be calculated at the Post Construction Review. The Post Construction Review will be undertaken by Ofwat following Acceptance being achieved. The purpose of the Post Construction Review is two-fold: firstly, to determine the RCV that will apply after the construction period and in perpetuity taking into account any adjustments due to delays and/or Project overspend or underspend; and, secondly, to determine the allowed revenue during the initial operational period (unless the Post Construction Review occurs concurrently with the First Periodic Review, in

which case only the first purpose is relevant). Therefore, as part of the Post Construction Review, the incentive adjustments will be calculated and put into effect.

[If the IP disputes Ofwat's determination at the Post Construction Review, it may require Ofwat to refer the matter to the CMA for determination.]

- (b) The allowed revenue during the initial operational period up until 31 March following the First Periodic Review will be calculated by reference to a number of building blocks that take into account the different risk profile of the IP during such period (as compared with the construction period). Most importantly, during this period the IP's return on capital will no longer be determined by reference to the BWACC, but rather a real weighted average cost of capital specific to the Project to be determined by Ofwat as part of the Post Construction Review (termed the Post Construction Review WACC). Also, the return on capital will be earned against the RCV set by Ofwat at the Post Construction Review (termed the Post Construction Review RCV). As construction will be complete, the IP will no longer benefit from a liquidity building block or a financing cost adjustment mechanism.
- (c) The calculation of the allowed revenues during the initial operational period will be based on the following building blocks.

$$(\text{RoC} + \text{Op} \pm \text{RA} + \text{Tax} [+ \text{RO}]^4) - \text{DA}$$

- (d) An explanation of each of the above building blocks is provided below.
- (i) **Return on Capital (RoC) building block:** this accounts for the return on capital the IP is entitled to receive in each Charging Year during the initial operational period in respect of the Post Construction Review RCV. The return on capital is calculated by reference to the real weighted average cost of capital specific to the Project, as determined by Ofwat in the Post Construction Review. Guidance on how this return will be determined can be found in the Economic Guidance provided by Ofwat.

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<sup>4</sup> This is in square brackets because it may or may not apply depending on Ofwat's discretion – see 3.1 (d)(v) below.

- (ii) **Opex (Op) building block:** this accounts for the operating costs allowance the IP will be entitled to recover. This allowance will be determined by Ofwat at the Post Construction Review.
  - (iii) **Revenue Adjustment (RA) for under-/over-recovered allowed revenue:** this accounts for adjustments to the allowed revenue to take into account any under-/over-recovery of revenue experienced by the IP in previous Charging Years with a two year lag. This building block works on the same basis as the RA building block during the construction period.
  - (iv) **Tax building block:** this accounts for Ofwat's estimate of tax to be paid or received by the IP in the relevant Charging Year.
  - (v) **Run off (RO) adjustment:** this accounts for any run off of the Post Construction Review RCV. It is within Ofwat's discretion whether to apply this run off adjustment, although in practice the proposal to implement the run off adjustment will be initiated by the IP. If applied, it will be done on a straight line basis from 1 April following the Post Construction Review over the useful economic life of the IP Regulated Assets, unless otherwise determined by Ofwat at the Post Construction Review.
  - (vi) **Delay Adjustment (DA):** this accounts for the penalty the IP will be subject to if Acceptance is not achieved by the Planned System Acceptance Date, as described in paragraph 3.3 (j) – (q) below.
- (e) The allowed revenue for each Charging Year during the initial operational period will be calculated in the immediately preceding Charging Year.

### 3.2 Post Construction Review RCV

- (a) The Post Construction Review RCV will be determined by Ofwat as part of the Post Construction Review.
- (b) The Post Construction Review RCV will comprise:
  - (i) the Actual Cumulative Project Spend, being the aggregate of all Allowable Project Spend incurred by the IP in each Charging Year prior to the Post Construction Review, as verified by the Independent Technical Assessor; and

- (ii) the Additional Allowable Project Spend determined by Ofwat as part of the process for approving Additional Allowable Project Spend, as described in paragraph 2.3 (b) – (h) above,

as adjusted by the incentive framework as part of the Post Construction Review.

### **3.3 Adjustments to the Post Construction Review RCV**

- (a) The Post Construction Review RCV will be subject to an upward or downwards adjustment based on two incentive frameworks: one framework rewards cost savings and penalises cost overruns, and the other incentivises the IP to complete the Project on time.

#### **Adjustments due to overall cost over-runs and cost savings**

- (b) The IP will be incentivised to complete the Project within the Original Base Case Forecast. The incentive mechanism allows the IP to be rewarded for completing the Project below the Original Base Case Forecast, and conversely to be penalised for completing the Project above the Original Base Case Forecast (in each case as adjusted for any Base Case Adjustment Trigger Events as described in paragraph 2.8 (d) – (g) above).
- (c) If the Actual Cumulative Project spend is below the Original Base Case Forecast, the IP will receive an increase in its Post Construction Review RCV equal to 40% of the underspend. The IP would thus earn a return on capital based on this increased Post Construction Review RCV into perpetuity (subject to run off of the RCV as a whole).
- (d) If the Actual Cumulative Project spend is above the Original Base Case, there will be a decrease in the Post Construction Review RCV equal to 40% of the overspend. In this case, the IP would not earn a return on capital in respect of this reduction in the Post Construction Review RCV.

#### **Adjustments due to annual cost over-runs and cost savings**

- (e) In addition to the adjustment based on the total costs incurred prior to the Post Construction Review, there is an adjustment based on the cost profile in the construction phase to reflect cost over-runs or savings in particular years. Cost overruns early in the construction period are more costly to customers as the allowed revenue will be higher for the rest of the

construction period as a result of the cost over-run (as the cost over-run goes into RCV which then earns a return from customers). This effectively means that the IP is under-/over-recovering revenue in comparison to the base case forecast from the moment that the under-/overspend occurs. This adjustment seeks to penalise/reward the IP for 40% of the value of this impact of the cost under-/over-run on customers in comparison to the base case forecast during the construction phase. The details of this mechanism are provided below.

- (f) This adjustment mechanism is based on the net present value of any over- and under-recovered return on capital caused by any overspend or underspend occurring in each Charging Year prior to the Post Construction Review. The net present value is calculated using the BWACC as the discount factor.
- (g) If the Allowable Project Spend incurred by the IP in any Charging Year prior to the Post Construction Review is below the Annual Base Case Forecast for that Charging Year (as adjusted for any Base Case Adjustment Trigger Events), the IP will receive an increase in its Post Construction Review RCV equal to 40% of the net present value of the under-recovered return on capital caused by the underspend.
- (h) If the Allowable Project Spend incurred by the IP in any Charging Year prior to the Post Construction Review is above the Annual Base Case Forecast for that Charging Year (as adjusted for any Base Case Adjustment Trigger Events), there will be a decrease in the Post Construction Review RCV equal to 40% of the net present value of the over-recovered return on capital caused by the overspend.
- (i) It is noted that annex A to appendix 1 sets out the Annual Base Case Forecast for each Charging Year within the period from the date of the Project Licence award until the Planned System Acceptance Date. For any period thereafter the Annual Base Case Forecast will be set at zero. This is based on the assumption that the Project should reach Acceptance by the Planned System Acceptance Date. Therefore, if the Project has not achieved Acceptance by the Planned System Acceptance Date, any costs incurred by the IP after this date will be treated as a 100% overspend as compared to the Annual Base Case Forecast.

## Delay Adjustment

- (j) The IP is incentivised to achieve Acceptance by the Planned System Acceptance Date, failing which it will be subject to a penalty in the form of a step down in the weighted average cost of capital earned by the IP during the period of delay. To ensure this step down does not negatively impact financeability during the construction period, the IP will continue to receive the BWACC throughout the construction period up until 31 March following the Post Construction Review. The step down will therefore be applied retrospectively through a delay adjustment mechanism calculated as part of the Post Construction Review.
- (k) The delay adjustment is calculated by applying this step down in BWACC to the average RCV received by the IP in each year of delay. A net present value calculation of the penalties in each of the years of delay is then determined by using the BWACC as the discount factor to take account of the delay in imposing the penalty.
- (l) Different step downs will apply during different periods.
- (m) For any delays in Acceptance of up to 18 months from the Planned System Acceptance Date (termed a 'Minor Delay Period'), the BWACC (stated in real terms) for this period will be replaced by the lesser of:
  - (i) the IWACC; and
  - (ii) the BWACC less 100bps.
- (n) For any delays in Acceptance beyond 18 months from the Planned System Acceptance Date until the actual date of Acceptance (termed a 'Major Delay Period'), the BWACC for this period will be replaced by a real weighted average cost of capital determined by Ofwat at the time of this delay and revisited every 12 months until the date of Acceptance.
- (o) In addition, if Acceptance occurs after 1 May in any Charging Year which results in a delay in the Post Construction Review and consequently a delay in the start of the initial operational period by an additional year, then there will be a delay adjustment for the period from the later of:
  - (i) 1 April 2028; and
  - (ii) the date of Acceptance until 31 March following the Post Construction Review.

In this case, the BWACC for this period will be replaced by the Post Construction Review WACC. For example, if the Planned System Acceptance Date was 28 February 2027, then the initial operational period would have been scheduled to start on 1 April 2028. If Acceptance is only achieved on 15 May 2027, this would mean that the initial operational period could not start until 1 April 2029 (as there would not be enough time to complete the Post Construction Review in time to include the change to customer bills for April 2028). As a result, this delay adjustment will be applied over the period from 1 April 2028 until 31 March 2029 to take account of the additional delay in commencement of the initial operational period.

- (p) 50% of the value of the aggregate delay adjustments will be applied by reducing the Post Construction Review RCV.
- (q) The other 50% of the aggregate delay adjustments will be applied by reducing the allowed revenue the IP is entitled to receive in the first Charging Year following the Post Construction Review subject to a cap of £15 million (as indexed, or such higher amount as elected by the IP by notice to Ofwat or such lower amount as agreed to by Ofwat). If the delay adjustments have not been fully recovered in the first Charging Year due to the cap, any remaining amounts will be carried forward into the next Charging Year and so on until it is fully recovered, provided that the annual reduction will never exceed the above cap. Carried forward amounts will be subject to indexation each Charging Year until recovered based on changes in RPI and a net present value adjustment calculated using the water industry weighted average cost of capital for the immediately preceding year as the discount factor.

#### **4. Allowed revenues following the initial operational period**

- (a) The allowed revenue for any Charging Year following the First Periodic Review will be determined at the First Periodic Review and each subsequent Periodic Review and calculated by Ofwat in accordance with Condition B (Allowed Revenue) of the Project Licence.
- (b) If the Post Construction Review occurs concurrently with the First Periodic Review, the Post Construction Review and the First Periodic Review will be carried out simultaneously and there will be no initial operating period. However, the RCV for any Charging Year following the First Periodic

Review will be equal to the Post Construction Review RCV, as adjusted based on the above incentive frameworks.

## **2. Overview of appendix 2: Non-revenue conditions**

### **1. Introduction**

- 1.1 Appendix 2 sets out the non-revenue related conditions that apply to the IP during the construction period and initial operational period up until (and including) 31 March following the First Periodic Review.

### **2. General IP obligations in respect of the Project**

- 2.1 The IP must use reasonable endeavours to commence construction of the Project within 12 months of the date of the Project Licence being awarded, being the date on which all the project documents have become effective.
- 2.2 The IP will not be required to finance the IP Regulated Assets in the event that the Project is Discontinued (or deemed Discontinued) in accordance with the Discontinuation Agreement.

### **3. Timing of the Post Construction Review**

- 3.1 The Post Construction Review will take place on 1 November following Acceptance, unless Acceptance occurs between 1 May and 31 October, in which case it will take place on 1 November in the immediately following year. Also, if Acceptance has not occurred within three years from the date of Handover, Ofwat may, by notice to the IP, determine to conduct the Post Construction Review prior to Acceptance.
- 3.2 The IP is required to submit to Ofwat its business plan setting out the works and services it is required to perform during the long-term operational period (and initial operational period, if any). The business plan must be submitted to Ofwat no less than six months prior to the Post Construction Review. This is in order to give Ofwat sufficient time to take account of the business plan for the purposes of the Post Construction Review and determining IP's allowed revenues following the Post Construction Review.

## **4. Information requirements**

- 4.1 The IP is required to provide certain information to Ofwat in accordance with the requirements of the Liaison Agreement.
- 4.2 The IP is required to appoint the Independent Technical Assessor and maintain such appointment until the Post Construction Review. Among other things, the services of the Independent Technical Assessor will include verifying the Allowed Project Spend incurred by the IP during the construction period.
- 4.2 The IP is required to co-operate with the Independent Technical Assessor and give the Independent Technical Assessor rights of inspection, measuring and testing in order to enable the Independent Technical Assessor to perform its services.

## **5. Delays in Acceptance beyond the Longstop Date**

- 5.1 The IP is required to complete the Project by no later than the Longstop Date, being 18 months following the Planned System Acceptance Date. Failure to do so may give rise to Ofwat taking enforcement action against the IP.
- 5.2 In order to avoid enforcement action being taken by Ofwat, appendix 2 provides for an early warning mechanism that allows the IP to apply for an extension of the Longstop Date.
- 5.3 If the IP becomes aware of any incident, circumstance or event of any nature that is likely to result in Acceptance not occurring by the Longstop Date, it must notify Ofwat of the same. Any such notice must set out details of the delay event, including its nature, extent and reasons for it occurring, the corrective actions already undertaken or to be undertaken to mitigate the consequences of the delay event, and the effect on the timing of Acceptance.
- 5.4 If the delay event cannot be mitigated such that Acceptance can occur prior to the Longstop Date, the IP is required to apply to Ofwat for an extension of the Longstop Date, in which case Ofwat will determine whether to approve the extension.
- 5.5 In making its determination to approve an extension of the Longstop Date, Ofwat will take into consideration whether the delay event was caused or contributed to by one or more of the following.

- (a) A breach, default, act of prevention or omission of TWUL.
  - (b) An act of a third party (excluding Ofwat or any other competent authority).
  - (c) An act or omission of Ofwat or any other competent authority.
  - (d) An event for which the construction contractors are entitled to an extension of time to their completion date pursuant to the construction contracts for the construction of the Project.
  - (e) Any changes to the Project Specification Notice (but only to the extent that such extension of time to the Longstop Date has been agreed as part of those changes).
  - (f) The exercise by TWUL of its suspension rights under the Interface Agreement for reasons of health and safety, emergency or operational necessity (other than as a result of the act or negligence of the IP or its subcontractors).
  - (g) An act of prevention or default of the IP.
- 5.6 Ofwat will notify the IP of its decision as to whether to extend the Longstop Date within three months of application for such extension by the IP[, failing which the IP may require Ofwat to refer the matter to the Competition and Markets Authority for determination].]
- 5.7 The same process will apply to any further required extensions of the Longstop Date.
- 5.8 If the IP wishes to apply for an extension of the Longstop Date and approval of Additional Allowable Project Spend at the same time, such applications may be made as a single application, in which case they will both be considered simultaneously by Ofwat.

## **6. Ofwat fees payable prior to the First Periodic Review**

- 6.1 On 1 April (and, if Ofwat so determines, on 1 January) of each Charging Year during the construction period until 1 April following the Post Construction Review and the initial operational period until 1 April following the First Periodic Review, the IP will pay Ofwat an amount(s) to cover costs estimated by Ofwat

as likely to be incurred by it in the Charging Year in question (or as already incurred by it in the preceding Charging Year but not previously recovered) in the regulation, monitoring of the IP and enforcement of the IP's regulatory obligations. Such amounts will be determined by Ofwat after consultation with the IP.

- 6.2 The total of all such amounts that the IP will be required to pay Ofwat will be subject to the Regulation Fee Cap, which varies depending on the period when amounts are levied by Ofwat. So, during the construction period up until the 1 April immediately following the Post Construction Review, the Regulation Fee Cap will be [£xxx] or such higher figure as the IP may from time to time agree (not to be unreasonably withheld or delayed), and thereafter up until 1 April following the First Periodic Review the Regulation Fee Cap will be an amount to be determined by Ofwat at the Post Construction Review.
- 6.3 In the event that the IP makes an application to Ofwat for an extension of the Longstop Date and/or approval of Additional Allowable Project Spend and/or there has been a determination in respect of a Mandatory Variation Dispute (see paragraph 8 below), the Regulation Fee Cap may be modified by Ofwat as required to cover the costs estimated by Ofwat as likely to be incurred by it (or already incurred by it) as a result of the application and/or determination.
- 6.4 [If a reference is made to the Competition and Markets Authority (where permitted under appendix 1 or appendix 2), the IP will also be liable to pay Ofwat the sum of Ofwat's estimation, after consulting the Competition and Markets Authority, of the costs incurred by the Competition and Markets Authority in the previous Charging Year in relation to the reference made to it.]

## 7. Licence revocation

- 7.1 Ofwat may revoke the Project Licence after consultation with TWUL by giving at least 30 days' notice to the IP if the Project is Discontinued (or deemed Discontinued) in accordance with the Discontinuation Agreement. In this case, the IP will be required to do all things necessary to comply with any direction issued by Ofwat to the IP, requiring the IP to:
- (a) take steps to effect the transfer to another company(-ies), at nil value, of so much of the IP's business as Ofwat directs; and

- (b) secure and make safe the IP Regulated Assets pending a transfer to another company(-ies) as described above. The associated costs of the IP will be treated as expenditure incurred or to be incurred by the IP in connection with the Project (and so included in the RCV).
- 7.2 If the Project is Discontinued (or deemed Discontinued), Ofwat will direct TWUL as to the treatment of any revenue collected by TWUL with respect to IP's allowed revenue, but not already passed on to the IP and any revenues which may subsequently be collected by TWUL in respect of IP's allowed revenue. This will not constitute funding for TWUL to carry on with the delivery of the Project. This will apply whether or not Ofwat has given the IP a revocation notice in respect of the Project Licence. Before issuing any such direction, Ofwat will consult the IP and TWUL.

## **8. Mandatory Variation Disputes**

- 8.1 The IP is required to refer certain disputes under the Liaison Agreement relating to variations that must be implemented in relation to the Project (termed Mandatory Variation Disputes) to Ofwat for determination. Any such disputes will be determined by Ofwat on such terms as it considers appropriate. In doing so, Ofwat will need to be mindful of factors set out in the Project Licence, which include its duties under the Water Industry Act 1991.
- 8.2 Ofwat's determination may include whether the relevant variations that are the subject of the Mandatory Variation Dispute should be implemented by the IP or TWUL with or without modification or whether they should not be implemented. Any such determination will be binding on the IP.

## Overview of the main body of the Project Licence

Although in substance the Project Licence conditions are similar to an undertaker's conditions of appointment, a simplified format has been used for some of the Project Licence conditions. Where appropriate, the language and structure has been simplified in order to make the document more streamlined and accessible.

Conditions that are no longer used in practice have been deleted – for example, condition J (service targets) and condition L (asset management plans); and some conditions have been consolidated – for example, all the information provisions now appear in one consolidated condition M, and all the ring-fencing provisions now appear in one consolidated condition K.

Licence condition	Summary
Principal duty	<p>The principal duty of the IP will be:</p> <ol style="list-style-type: none"> <li>1. to design, construct, finance, test and commission, operate and maintain and achieve Acceptance of the IP Regulated Assets by a specified date; and</li> <li>2. from the date of Acceptance to own, operate, finance and maintain the IP Regulated Assets so that they are available for use by Thames Water and the Thames Tideway Tunnel is capable of being operated in accordance with Thames Water's environmental permits and with the operating techniques (agreed between Thames Water and the Environment Agency).</li> </ol>
B: Allowed revenue	<p>Prior to the Post Construction Review, the IP's allowed revenue will be determined by the provisions of appendix 1 and appendix 2 to the Project Licence and during operations its allowed revenue will be determined under condition B at a five-yearly price review that happens concurrently with the wholesale price control of the incumbent undertaker, Thames Water.</p> <p>In the normal course of events, the IP will charge Thames Water for its services rather than end-users. The IP will submit an invoice to Thames Water for the IP charge and Thames Water will include the IP charge in its charges to wastewater customers.</p> <p>Condition B also includes standard interim determination provisions, but these will not be operable until after the Post Construction Review.</p> <p>Provisions permitting the IP to appeal a price determination to the CMA have been included, but in square brackets until the proposed</p>

Licence condition	Summary
	<p>amendments to the SIP Regulations have been ratified and the amended provisions come into effect. It is anticipated that the SIP Regulations will be amended later this year.</p>
<p>F: Regulatory accounts</p>	<p>Unlike an undertaker’s instrument of appointment, condition F of the Project Licence will only focus on regulatory accounts (the ring-fencing provisions, which normally appear in an undertaker’s condition F have been consolidated and are dealt with in condition K and the reporting provisions have been consolidated and are dealt with in condition M). The remaining provisions are similar to condition F of an undertaker. They set out details of the accounts and financial information that the infrastructure provider will be required to deliver to Ofwat.</p>
<p>J: Levels of service information and service targets</p>	<p>Condition J has been omitted from the Project Licence, because in practice, it is no longer used.</p>
<p>K: Regulatory ring-fence and disposals of land</p>	<p>This consolidates all the ring-fencing provisions that are currently in an undertaker’s conditions F, K and P. It provides the same protection for customers as is currently in undertakers’ instrument of appointment, including requiring the IP to:</p> <ul style="list-style-type: none"> <li>• at all times have sufficient rights and assets available to enable a special administrator to manage the IP’s business;</li> <li>• trade at arm’s length with associates;</li> <li>• have a dividend policy in place;</li> <li>• obtain legally enforceable undertakings from its owners; and</li> <li>• maintain not less than three independent non-executive directors on its board.</li> </ul> <p>The disposal of protected land is dealt with in condition L (see below).</p>
<p>L: Asset management plans</p>	<p>In practice, condition L has become redundant because undertakers are required to include asset management plans as part of their business plans for a price review. The IP will be subject to the price control during the operational period and a standard condition L has therefore not been included in the draft Project Licence.</p> <p>Instead, condition L deals with all the provisions on land disposals. These provisions are similar to the provisions that apply to the disposal of protected land for undertakers.</p>

Licence condition	Summary
M: Provision of information	This condition consolidates various information provisions in one condition. It achieves the same as the equivalent conditions for undertakers. It provides for the IP to provide Ofwat with information it reasonably requires to carry out its functions.
N: Fees	This condition is different in effect from the equivalent condition for undertakers. It allows Ofwat to recover actual regulatory costs from the IP during construction, subject to a cap. During operations, it provides that the cap on regulatory costs will be set by Ofwat at the Post Construction Review and this figure will then be increased annually in line with RPI. In addition to recovering Ofwat's costs, the condition also allows Ofwat to recover the costs involved in carrying out price reviews and the costs of any references to the CMA.
O: Revocation	<p>This allows the Secretary of State to revoke the Project Licence on 25 years' notice; it allows Ofwat to revoke the Project Licence on two years' notice if the RCV of the IP will, by the expiry of the notice, depreciate to zero; and it allows Ofwat to revoke the Project Licence in the event the IP is put into special administration<sup>5</sup> and the special administration fails (that is, the Project Licence is not transferred to a replacement IP and the IP is not rescued as a going concern). Ofwat may also revoke the Project Licence with the consent of the IP.</p> <p>If the Project Licence is revoked, Ofwat may direct to whom assets held by the IP should transfer. The direction given may be subject to conditions including in respect of the valuation of the IP regulated assets.</p>
P: The roles of the IP's owners	In line with the simplified template, this condition has been incorporated into condition K which deals with ring-fencing.
Appendix 1: Calculation of Allowed Revenue	<p>The appendix sets out the formula for calculating the IP's allowed revenue during construction and during transition – see part 1 above.</p> <p>Appendix 1 of the licence will fall away on 1 April following the first periodic review.</p>

<sup>5</sup> This may need to be amended to also refer to ordinary administration if regulations are made by the Secretary of State to make ordinary administration available to licensed infrastructure providers under proposed insolvency law reforms for the water industry.

Licence condition	Summary
Appendix 2: Non-revenue conditions that apply prior to the Post Construction Review	<p>This appendix sets out the non-revenue conditions that only apply during construction – see part 2 above.</p> <p>Appendix 2 will fall away on 1 April following the first periodic review.</p>
Appendix 3: Direct charging conditions following the post construction review	<p>Appendix 3 sets out additional Project Licence conditions that will apply should the infrastructure provider ever charge end-users instead of charging the incumbent undertaker. All of these provisions will be suspended until the Revenue Agreement terminates and the IP intends charging end user customers.</p> <p>Appendix 3 includes additional provisions for:</p> <ul style="list-style-type: none"><li>• condition B (enabling Ofwat to set a retail price control);</li><li>• condition D (requiring the IP to have a charges scheme in place);</li><li>• condition E (requiring the IP to ensure that its charges to end users do not show undue discrimination);</li><li>• condition G (customer information). This consolidates all the current customer information conditions into one condition; and</li><li>• condition N (including a provision for an additional fee to cover the costs of the Consumer Council for Water).</li></ul>

## Addendum A: Definitions

**Acceptance** means the acceptance of all of the IP Regulated Assets, as well as the sewerage assets procured and financed by TWUL, in accordance with the Interface Agreement.

**BWACC** means the weighted average cost of capital bid by the IP.

**Charging Year** means a calendar year commencing on 1 April of one calendar year and ending on 31 March of the immediately following calendar year.

**Commencement Date** means the date on which all the Project documents have become effective, being the date on which all conditions precedent have been satisfied or waived pursuant to the Liaison Agreement.

**CMA** means the Competition and Markets Authority.

**Discontinuation Agreement** means the agreement of that name entered into between the IP and the Secretary of State.

**Discontinuation Notice** means a notice issued by the Secretary of State under the Discontinuation Agreement.

**Discontinued** means the Secretary of State has issued a Discontinuation Notice in accordance with the Discontinuation Agreement.

**First Periodic Review** means the first review of the Licensed Business following Acceptance; the First Periodic Review will be timed to coincide with the first periodic review of the TWUL's wholesale activities that takes place following Acceptance and may coincide with the Post Construction Review.

**Handover** means the completion of construction of all of the IP Regulated Assets, as well as the sewerage assets procured and financed by TWUL, as evidenced by the issuance of a handover certificate in accordance with the Interface Agreement.

**Independent Technical Assessor** means the company appointed by the IP as an independent technical assessor in accordance with the Liaison Agreement.

**Interface Agreement** means the agreement of that name between, among other things, the IP and TWUL, dated on or about the Commencement Date.

**IP** means the licensed infrastructure provider.

**IP Regulated Assets** means:

- (i) prior to Acceptance, the sewerage assets to be constructed and maintained by the IP in accordance with the Project Specification Notice (excluding, from Handover, the pump exercising system fitted to the storm pumping stations at each of Hammersmith, Falconbrook and Earl); and
- (ii) from Acceptance, the IP owned structures.

**IWACC** means the post-tax cost of equity with a pre-tax cost of debt weighted average cost of capital for the relevant services, as determined and published by Ofwat following a periodic review (excluding any small company adjustments) and applied generally at the relevant time in respect of the relevant services on an industry-wide basis.

**Liaison Agreement** means the agreement of that name between the IP, the Secretary of State and TWUL, dated on or about the date of the Project Licence.

**Planned System Acceptance Date** means the date on which Acceptance is scheduled to be achieved being [28] February 2027.

**Post Construction Review** means the date on which Ofwat issues its final determination on its review of the IP's licensed business, which is to take place on 1 November following Acceptance, unless Acceptance occurs between 1 May and 31 October, in which case it will take place on 1 November in the immediately following year; if however Acceptance has not occurred within three years from the date of Handover, Ofwat may, by notice to the IP, determine to conduct the Post Construction Review prior to Acceptance.

**Project** means the financing, design, construction, commissioning, Acceptance, maintenance, operation and ownership of the sewerage assets known as the Thames Tideway Tunnel.

**Project Licence** means the licence granted to the IP by Ofwat pursuant to section 17FH of the Water Industry Act 1991 (as given effect by the SIP Regulations) in relation to the Project.

**Project Specification Notice** means the Thames Tideway Tunnel Project Specification Notice made by the Secretary of State on 4 June 2014 pursuant to regulation 4(1) of the SIP Regulations.

**RCV** means regulatory capital value

**Secretary of State** means the Secretary of State for Environment, Food and Rural Affairs.

**SIP Regulations** means the Water Industry (Specified Infrastructure Projects) (English Undertakers) Regulations 2013 (as may be in force from time to time).

**TWUL** means Thames Water Utilities Limited.

## **Addendum B: Indexation**

This addendum summarises the inflation and deflation principles that apply to different values referred to in appendix 1 to the Project Licence.

### **Revenue calculations**

The costs incorporated into the RCV are deflated using RPI. Costs incurred in years previous to the revenue calculation being undertaken are deflated using the Applicable Change in Cost RPI, which is based on actual observed RPI. Costs that are only estimates or forecasts are deflated using the [2010/11] RPI Adjustment Factor which is based on forecast as well as actual observed RPI. When calculating the allowed revenue, the RCV value is then indexed upwards by the Applicable Change in Revenue RPI. This is based on the actual observed RPI up to November of the previous charging year, which is the latest available RPI value at the time at which the revenue calculations are undertaken. For the Return on Capital and Liquidity building blocks, this indexed value is then multiplied by BWACC, which is stated in real terms.

## Cost calculations

Value	Original calculation: real/nominal	Indexed	Deflated	Comment
Allowable Project Spend (APS)	Nominal	n/a	n/a	
Additional Allowable Project Spend (AAPS)	Nominal	n/a	n/a	
Annual Actual Project Spend (AAPS)	Nominal	n/a	Deflated based on the Applicable Change in Cost RPI	Deflation carried out in respect of a Charging Year. This is carried out to ensure that values added to the RCV all have a consistent indexation base date.
Actual Cumulative Project Spend (ACPS)	Nominal	n/a	Deflated based on the Applicable Change in Cost RPI	The ACPS is defined by reference to the aggregate of AAPS for each Charging Year, so the same deflation principle by implication applies to the ACPS.

## Incentive calculations

Value	Original calculation: real/nominal	Indexed	Deflated	Comment
Annual Base Case Forecast (ABCF)	Real	Indexed based on the Applicable Change in Cost Indices	Deflated based on the Applicable Change in Cost RPI	Indexation and deflation carried out in respect of each Charging Year falling within the period from (and including) the Commencement Date until (and including) the Charging Year in question. The inflation is done to provide protection for the IP against general movement in construction inflation. The deflation takes place so that any incentives/penalties are calculated on a consistent basis with the RCV base date.
Original Base Case Forecast (OBCF)	Real	Indexed based on the Applicable Change in Cost Indices	Deflated based on the Applicable Change in Cost RPI	The OBCF is defined by reference to the aggregate of ABCF for each Charging Year, so the same inflation/deflation principles by implication apply to the OBCF.
Predicted Overrun (P/O)	Nominal	n/a	Deflated based on the Applicable Change in Cost RPI	The Predicted Overrun is defined by reference to the ACPS so the same principles apply.

Value	Original calculation: real/nominal	Indexed	Deflated	Comment
Threshold Outturn (T/O)	Real	n/a	n/a	



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