

**Final determination of the price of the supply
of non-potable water from United Utilities
Water Limited to Iggesund Paperboard
(Workington) Limited under section 56 of the
Water Industry Act 1991**

About this document

This is Ofwat's final determination of the relevant terms and conditions of the supply by United Utilities Water Limited (**UWW**) to Iggesund Paperboard (Workington) Limited (**IP(W)L**) of non-potable water at Workington, under section 56 of the Water Industry Act 1991.

In making decisions on strategic casework matters, we want to be as transparent as we can with all stakeholders about how we have reached our conclusions. This document describes our investigation in relation to the disputed terms between UWW and IP(W)L and explains how we have reached our determination of the relevant terms and conditions of the supply in this case.

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Executive Summary

Igesund Paperboard (Workington) Limited (IP(W)L) operates a large paper mill at a site near Workington in the northwest of England. The site is located in the supply area of United Utilities Water Limited (UUW).

The water used by the mill is extracted by UUW in a raw form from the River Derwent at Yearl, coarse screened and pumped to a raw water pumping station at Barepot. The water is then pumped to a raw water service reservoir near the village of Seaton. This is known as the **Barepot System**. All assets up to and including the service reservoir are used exclusively to provide non-potable water to IP(W)L and to two other industrial customers (though IP(W)L is by far the largest customer, accounting for some 95 per cent of the water supplied via the Barepot System).

The supply to the mill has been the subject of a number of agreements stretching back to the 1960s. The current dispute dates from 2006 when a previous agreement, signed in 1983, came to an end. While the parties signed a new 20 year agreement in October 2009 (which was back-dated to 1 April 2006) this had been the subject of significant disagreement between the parties and was only arrived at after a protracted period of negotiation. While IP(W)L finally signed the 2009 Agreement, they continued to express their dissatisfaction at the price terms which UUW had included. In addition, the new agreement contained a provision that the price terms were subject to determination by Ofwat and also included a provision to enable IP(W)L to terminate the agreement at three months' notice should IP(W)L no longer need a supply from UUW.

On 21 September 2010, IP(W)L wrote to Ofwat requesting that we make a determination in relation to the following price terms which are contained in the October 2009 agreement. These terms stipulate that IP(W)L (and the two other customers on the supply system) will pay to UUW

- **“14.9 pence per cubic meter for all non-potable water so supplied to that Company commencing 1st April 2006. ...” and that**
- **“the Charges paid by the Company for non-potable water shall be adjusted annually in line with RPI”.**

IP(W)L contend that the price that UUW is charging is excessive given the fact that, as it has constructed its own water treatment plant (completed in June 2006), UUW now only supplies the mill with coarse screened raw water rather than the treated non-potable water that it had supplied under earlier agreements. According to IP(W)L's estimates, this change in the nature of the service being provided by UUW

should have resulted in a far more substantial reduction in the price charged by U UW than was reflected in the 2009 Agreement. Moreover, IP(W)L also argues that because of its ongoing concerns about the level of charges being imposed by U UW, it has been necessary to consider alternative water supply options. To this end, IP(W)L has secured its own abstraction licence along with an old extraction point and pumping plant and has commissioned studies to examine the costs involved in bringing the plant into use to enable it to self-supply the mill and by-pass U UW's supply system completely.

Having satisfied ourselves that we had jurisdiction to intervene in this dispute, we wrote to both parties on 26 January 2011 informing them that we were opening a case under section 56 of the Water Industry Act 1991. This provides for Ofwat to determine the disputed terms and condition of an agreement “**according to what appears to [Ofwat] to be reasonable**”. In addition, it provides that in making this determination, Ofwat “**must have regard to the desirability of the relevant water undertaker –**

- **recovering the expenses of complying with its obligations under section 55 of the Act; and**
- **securing a reasonable return on its capital”.**

To inform our investigation of the disputed terms, we issued a number of requests for information to the parties. In addition, we also commissioned studies from a number of external consultants to provide an independent assessment of the assumptions underpinning the parties' cost models and to assist us in our analysis of the facts provided by them. These included:

- an assessment of the most appropriate cost of capital to be used in this and other price determination cases involving supply to large industrial customers. This was undertaken by Grant Thornton.
- an independent engineering review to verify the modelling assumptions and inputs used by the parties in their assessments of the costs of supply. This was undertaken by PA Consulting (PA) and included a detailed assessment of the capital maintenance and operating costs of the assets used by U UW to supply IP(W)L and other customers on the Barepot System, and the assumptions underlying the model used by U UW in setting the disputed price. In addition, PA was also engaged to undertake an assessment of the information provided by IP(W)L in relation to the costs of self-supply.

Following our detailed analysis of U UW's cost model, we found that the bottom-up or Local Accounting Cost (**LAC**) approach used by U UW to calculate the price of the supply in this case was appropriate because of the discrete nature of the Barepot

System. However, our analysis also revealed that a number of the cost assumptions contained in U UW’s model were unreasonable and had, therefore, resulted in a significant over-statement of the cost of the supply to IP(W)L.

In addition, in reaching a judgement of the reasonable price for the supply in this case, we also used our published framework for resolving bulk pricing disputes. We used our framework to inform our assessment of the most appropriate measure of costs to which we should have regard to the desirability of, for the purpose of section 56 of the Act. Specifically, we considered whether determining the price for the supply having regard to U UW’s (revised) LAC would cause material adverse effects.

Because of the specific circumstances of this case and the existence of a credible alternative supply option (i.e. IP(W)L’s self-supply), we were concerned that a price based on U UW’s LAC could result in IP(W)L choosing to “enter the market” even though it would be more efficient for U UW – as it is the party with the lowest **forward looking or avoidable costs** - to continue to provide the supply.

As part of our considerations, we also had regard to the fact that in the event that IP(W)L terminated its supply agreement with U UW and chose to invest in its own supply, U UW would continue to incur ongoing operating and capital maintenance costs to supply the two other customers on the Barepot System but would no longer receive any contribution from IP(W)L towards these costs (noting that IP(W)L uses around 95% of the supply). Any consequent “shortfall” in revenue would impact on U UW’s wider customer base. This is because the Barepot System assets are included in U UW’s Regulatory Capital Value (**RCV**) and U UW will continue to receive a return on these assets under the current price review process even if the assets become ‘stranded’ and are not used to supply IP(W)L. In the context of this case it does not seem reasonable, or appropriate, to Ofwat, for other customers generally to pay for a largely unused piece of infrastructure which, given the geographic isolation of the system, they do not benefit from, while at the same time IP(W)L is incentivised to build duplicate infrastructure.

In reaching our determination in this case therefore, and given that U UW’s ongoing or avoidable costs are significantly lower than IP(W)L’s, we consider it reasonable that the price for the supply should be set at a level to effectively match the “competitive price” i.e. at a level which is no higher than IP(W)L’s self-supply costs¹.

¹ IP(W)L’s self-supply costs were subjected to detailed scrutiny by Ofwat engineers and external experts.

While recognising that this price is lower than U UW's total cost of supply (as measured by LAC), it is still significantly higher than the ongoing or avoidable costs that U UW would incur in continuing to provide the supply and will result in a better outcome for the parties to the dispute and for U UW's customers more generally.

This is because:

- as the price for the supply will fall significantly, IP(W)L's incentive to develop its own infrastructure will be reduced – thereby avoiding unnecessary and inefficient new investment, which would simply duplicate the Barepot System;
- compared to a situation where IP(W)L chose to self-supply, U UW would recover all of its forward looking costs and a significant proportion of its sunk costs from IP(W)L, the main customer using the specific system; and
- to the extent that U UW experiences a "shortfall" against its total cost of supply, this would be recovered from U UW's other customers through the current price control mechanism, but those customers would have to make up a far smaller shortfall as compared with the situation in which IP(W)L chose to self-supply.

Before reaching this final determination, we issued a draft determination for public consultation in October 2014. The parties to the dispute and other interested stakeholders were invited to make representations to us on the determination we were minded to make and on the approach that we had adopted in reaching the draft determination. U UW submitted their representations to us on 14 November 2014 but IP(W)L chose not to make any further representations. In addition, we also received five responses to the public consultation from other interested stakeholders.

The information provided to Ofwat by the parties and the representations received in response to the consultation on our draft determination have been considered and we have also conducted further analysis of the cost assumptions underpinning IP(W)L's self-supply option before reaching a final decision in this case.

Having done this, **we determine that price for the supply of non-potable water from U UW to IP(W)L should be 9.1 p/m³ at 2011/12 prices. When re-based to 2006/07 prices to ensure consistency with the 2009 Agreement, this equates to a price of 7.7 p/m³.**

In addition, **we consider that RPI is an appropriate indexation for the price of non-potable water in the present case.** The use of RPI aligns the price indexation of non-potable water bulk supply to other parts of the U UW's business.

In reaching this determination, we are satisfied that we have fulfilled our duties under section 56 of the Act and have done so in a way which mitigates the risk of an

inefficient duplication of assets and an adverse impact on U UW's wider customer base.

The process we have applied to ensure that we have fulfilled our duties also serves to:

- reinforce the need for appointed undertakers to be able to justify the reasonableness of the prices they charge customers for the services being supplied;
- underline the importance of undertakers ensuring that these services are being provided as efficiently as possible; and
- highlight the need for undertakers to be prepared to respond appropriately to competitive pressure (e.g. market entry) as they would have to do in a non-regulated market.

1. Introduction

- 1.1 The Water Services Regulation Authority (**Ofwat**) has received a request from Iggesund Paperboard (Workington) Ltd (**IP(W)L**) that it determines the price and indexation of the supply of non-potable water from United Utilities Water Limited (**UUW**) to IP(W)L at Workington under section 56 of the Water Industry Act 1991 (**the Act**).
- 1.2 Ofwat has considered these applications and accepted them as it is clear that IP(W)L and UUW (together, **the parties**) are unable to reach agreement on the relevant terms and conditions.
- 1.3 Ofwat also considers that making this determination is an administrative priority, having regard to its current portfolio of work and the resources available, and has chosen not to exercise its discretion under section 56(3) of the Act to appoint an arbitrator in this case.
- 1.4 Since accepting the parties' applications, Ofwat has engaged in a detailed process to gather and assess the information necessary to make a determination. We published our draft determination in this case on 10 October 2014 and invited the parties and other interested stakeholders to make representations to us on the approach that we had adopted in reaching this draft determination and the information that we had relied on. Respondents' views on various aspects of our approach are addressed in Chapter 4 and are also set out in summary form in Appendix 4.
- 1.5 Having now assessed these representations, this document sets out our final determination in this case. It adopts the following structure.
 - **Legal powers and analytical framework (Chapter 2).**
 - **Background (Chapter 3).**
 - **Our determination (Chapter 4).**

- 1.6 **Appendix 1** highlights the terms and conditions which are the focus of the dispute between the parties and on which Ofwat has made its determination².
- 1.7 **Appendix 2** contains a list of documents received from the parties and correspondence with the parties since the matter was referred to Ofwat for determination in September 2010.
- 1.8 **Appendix 3** sets out the chronology of the requests for information (RFIs) which we have issued as part of our investigation and the responses to those RFIs that we have received from the parties.
- 1.9 **Appendix 4** sets out our response to comments received on our draft determination (to the extent that those comments are not dealt with elsewhere).
- 1.10 **Appendix 5** explains the approach that has been used in calculating the cost of capital in this and other price determination cases.

² Section 55(7) of the Act provides: 'The duty of a water undertaker to supply water under this section at the request of any person, and any terms and conditions determined under section 56 below in default of agreement between the undertaker and that person, shall have effect as if contained in such an agreement.' See further paragraph 2.5 below.

2. Legal powers and analytical framework

- 2.1 Under section 55 of the Act, water undertakers have a duty, where requested, to make supplies of water for “non-domestic” purposes (section 55(2) of the Act), provided that this does not involve incurring unreasonable expenditure or otherwise put at risk the ability of the water undertaker in question to meet any of its existing or probable future obligations to supply water for domestic or other purposes (section 55(3) of the Act).
- 2.2 Where the relevant parties are unable to agree the terms and conditions on which the supply of water for non-domestic purposes pursuant to section 55 of the Act will be effected, section 56(1)(b) of the Act obliges Ofwat, in default of such agreement, to determine any terms or conditions or other matter which falls to be determined for the purpose of such a supply. That determination is to be made “**according to what appears [to Ofwat] to be reasonable**”.
- 2.3 Further statutory provisions apply in relation to the charges (i.e. the price) for a supply provided in compliance with section 55 of the Act:
- In particular, under section 56(5)(a) of the Act, Ofwat may only determine such charges in the context of a determination under section 56(1)(b) of the Act to the extent that, at the time of the request for the supply in question, “**no provision is in force by virtue of a charges scheme under section 143 of the Act in respect of supplies of the applicable description.**” In other words, the existence of a charges scheme covering the supply requested under section 55 of the Act precludes Ofwat from determining the charges of that supply for the purposes of any determination under section 56(1)(b) of the Act. Where a charges scheme in respect of the supply in question is in place at the time of the request, then, pursuant to section 56(6) of the Act, it is that charges scheme which will govern the price of that supply.
 - Where there is no applicable charges scheme, then Ofwat is obliged to determine the charges for the supply (just as it is obliged to determine any other terms and conditions for the supply which have been referred to Ofwat, in the absence of agreement between the relevant parties). In that regard, section 56(5)(b) of the Act provides that, when determining the charges in respect of such a supply, Ofwat must have regard to the desirability of the relevant water undertaker –
 - (i) **recovering the expenses of complying with its obligations under section 55 of the Act; and**

(ii) securing a reasonable return on its capital.

- 2.4 Section 55(7) of the Act provides that the terms and conditions ultimately determined by Ofwat in the context of a determination under section 56(1)(b) of the Act in default of agreement between the parties shall have effect as if they were contained in such an agreement.
- 2.5 Under various other provisions in the Act, Ofwat has the function of resolving pricing disputes involving bulk supplies of water and sewerage services³. Whilst decisions under each of these provisions have to be decided by reference to their particular statutory criteria, certain issues, such as how to assess costs and possible adverse effects, (including effects on companies' ability to finance their business and on competition and efficiency), are likely to be issues which arise for consideration by Ofwat in the context of more than one particular statutory provision. Ofwat has been concerned to ensure that it acts consistently in resolving the different pricing disputes that can be referred to it when similar issues arise, and therefore has developed and published an analytical framework to be applied, as far as possible in the circumstances of each case and insofar as is consistent with the applicable statutory test to be applied on each occasion, to all such disputes (**the published framework**)⁴.
- 2.6 The published framework lists the statutory circumstances in which it will be considered, sets out Ofwat's objective in seeking consistency and explains that Ofwat will have regard to certain of its general duties which arise under section 2 of the Act for some determinations. In the case of section 56 determinations, those duties are not applicable⁵. The published framework also explains Ofwat's normal starting point in assessing costs for the purpose of price determinations and tests to be applied in establishing costs.

³ For the purposes of this paragraph and the published framework, a bulk supply is a supply of water or sewerage (wastewater) services from one appointed water company to another appointed company or, as in this case, the supply of these services to a large retail user.

⁴ [Bulk supply pricing – a statement of our policy principles](#) (February 2011); [Negotiating bulk supplies – a framework](#) (August 2013); [IN 14/04 Ensuring consistency in our approach to resolving pricing disputes involving bulk supplies](#) (January 2014);

[Our framework for resolving pricing disputes involving bulk supplies](#) (January 2014).

⁵ See section 2(6) of the Act, although some of the points which Ofwat had to consider in this case, such as, for example, the need to have regard to the desirability of U UW recovering the expenses of complying with its obligations and securing a reasonable return on its capital, have similarities with the principles which underlie Ofwat's section 2 duties.

- 2.7 How Ofwat has discharged its section 56 duties and applied its published framework in the present case is explained in Chapter 4. Ofwat confirms, for the reasons set out in detail in that chapter, that it considers the terms and conditions which it has determined to be applicable to the supply of water by UUW to IP(W)L's site at Workington to be reasonable in all the circumstances of this case.
- 2.8 Consistent with section 55(7) of the Act, the terms and conditions now determined by Ofwat have effect as if contained in the agreement between UUW and IP(W)L for the supply of non-potable water at Workington. That agreement commenced on 19 October 2009.

3. Background to the dispute

(A) The parties

- 3.1 U UW is a water and sewerage undertaker appointed under the Act. It provides water and sewerage services in the north west of England.
- 3.2 IP(W)L is part of the Holmen Group, one of Europe's leading manufacturers of virgin fibre paperboard which is used in packaging and graphics.
- 3.3 This determination relates to the supply of non-potable water provided by U UW to IP(W)L at Workington only.

(B) The service

- 3.4 IP(W)L operates a large paper mill (**the Mill**) at a site near Workington in the northwest of England. The site is located in U UW's water supply area.
- 3.5 The water used by the Mill is extracted by U UW in a raw form from the River Derwent at Yearl, coarse screened and pumped to a raw water pumping station at Barepot⁶. This water is then pumped to a raw water service reservoir near the village of Seaton. This is known as the Barepot System. All assets up to and including the service reservoir are utilised only to provide non-potable water to IP(W)L and two other customers (Eastman Chemical Workington Ltd (**Eastman**) and Pentagon Chemicals (**Pentagon**))⁷. Dedicated mains deliver the water to each customer's premises after the service reservoir.
- 3.6 IP(W)L is the largest customer on the Barepot System. Between 2007 and 2013, the Mill used an average of 7,881,161 m³ of non-potable water per annum (or 21,592 m³ per day)⁸. This represented 95% on average of the total volume of non-potable water supplied during this period.

⁶ U UW currently has a licence to abstract 34 ml/day from the River Derwent.

⁷ This determination applies to the disputed terms of the supply from U UW to IP(W)L only.

⁸ U UW's RFI response dated 9 April 2014.

Table 1: Volume of non-potable water supplied by U UW using the Barepot System

	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
	m3	m3	m3	m3	m3	m3
IP(W)L	8,052,000	8,429,072	8,570,810	7,052,263	7,554,245	7,628,577
Total	8,512,525	8,850,099	8,974,591	7,493,186	7,999,446	8,089,933

Source: U UW's RFI response, April 2014

3.7 U UW has confirmed that the supply is independent of its potable water supply system.

(C) Chronology of key events

3.8 The paper mill was constructed in 1966 under the ownership of Thames Board Ltd (**Thames**), IP(W)L's predecessor⁹. In 1966 Thames entered into a 40 year not-for-profit contract with West Cumberland Water Board (**the 1966 agreement**) for the supply of treated water from the Derwent River to the Mill. Cumberland Water Board built and operated the extraction point on the River Derwent at Yearl, the treatment works at Barepot and the reservoir at Seaton. Under the 1966 Agreement, the Mill would pay for the investment, periodic re-investment and running costs over a 40 year term. Pentagon and Eastman (through its predecessor Ectona Fibres Limited) were also parties to the agreement.

3.9 In 1983 the Mill was extended which increased its water needs. This resulted in a revised contract between Thames and North West Water Authority (which had taken over the responsibilities of the West Cumberland Water Board). The terms of this agreement (**the 1983 agreement**) remained largely the same as the 1966 agreement. In 1989, following privatisation of the water industry in the UK, U UW inherited the agreement as a Special Agreement and continued to operate it until its expiry on 31 March 2006.

⁹ Iggesund Paperboard took over ownership of the Mill in January 1990 – the date of the company name change.

- 3.10 Prior to the expiry of the 1983 agreement, IP(W)L met with U UW to renegotiate the terms of the ongoing supply of water to the Mill. In 2005, IP(W)L also conducted a review of the quality of the water being supplied to it and determined that the treated water being supplied by U UW did not meet its required standards. U UW subsequently provided estimates of the investment that would be required to update the water treatment works at Barepot but IP(W)L considered that the costs were excessive when compared with the cost of constructing its own treatment plant. As a result, IP(W)L decided to build its own water treatment plant, which was completed in June 2006.
- 3.11 IP(W)L asked U UW to revise its earlier proposal to reflect the fact that the Mill now required only coarse filtered water to be supplied. U UW and IP(W)L then entered into a protracted period of negotiation over settlement of the old supply contract and the terms of a new agreement.
- 3.12 The parties decided to put an interim agreement in place while a longer term agreement was negotiated (**the 2006 interim agreement**). The term of the 2006 interim agreement was initially 1 April 2006 to June 2006 and it provided that U UW would supply coarse screened water to IP(W)L for a price of 16.5p/m³, as opposed to the treated non-potable water it had supplied under the previous arrangements. The interim agreement had the option of being extended on a monthly basis subject to agreement by all parties.
- 3.13 In addition, in March 2006 U UW sought comments from Ofwat on their proposal to charge the three customers on the Barepot System 16.5p/m³ under the new agreement that was being negotiated. While Ofwat did not comment on the specific tariff proposed by U UW, on 4 September 2006 we did provide guidance on the methodology that U UW could follow in setting its charges¹⁰.
- 3.14 In subsequent years, the negotiations to put in place a new, longer term, agreement continued but there were major sticking points and the parties were unable to reach agreement on a new charge. By February 2009, the parties claim that negotiations had effectively reached stalemate. U UW then issued a letter terminating the interim agreement on 31 March 2009 and this was followed, on 27 May 2009, by a letter from U UW informing IP(W)L that, in the

¹⁰ More generally, in February 2011, Ofwat published “[Bulk supply pricing – a statement of our policy principles](#)” and in August 2013, we issued guidance on “[Negotiating bulk supplies – a framework](#)”.

absence of a special agreement, they would charge their standard rate for the supply of non-potable water of 32.3p/m³.

3.15 Following further negotiations, on 19 October 2009 the parties entered into a new 20 year agreement (**the 2009 agreement**). This was backdated to 1 April 2006. Under the 2009 agreement, IP(W)L, Eastman and Pentagon are required to pay U UW **14.9p/m³** (as at 2006/07) for the supply of non-potable water. The agreement also contains a provision to increase the price annually in line with inflation, as measured by the Retail Price Index (**RPI**).

3.16 While IP(W)L agreed to sign this agreement, they continued to express their dissatisfaction with the price terms imposed by U UW on them. In addition, a provision was included to enable IP(W)L to terminate the agreement at three months' notice should it no longer need a supply from U UW.¹¹

(D) Request for a determination

3.17 On 21 September 2010 IP(W)L wrote to Ofwat requesting a determination under Section 56 of the Act in relation to:

- The price that U UW should charge IP(W)L for the supply of non-potable water; and
- The method of annual indexation for the price of non-potable water.

3.18 Ofwat wrote to both of the parties on 26 January 2011 indicating that we were opening a section 56 determination case.

3.19 Using the numbering of the agreement, the following terms and conditions fall to Ofwat for determination under section 56 of the Act:

- Clause 7.2.1 which provides that during the term of this agreement, each Company¹² shall pay to U UW on demand the following charges (subject to determination by Ofwat) ..**“14.9 pence per cubic meter for all non-**

¹¹ Under clause 16.1.6 of the 2009 agreement it is open to IP(W)L to terminate the agreement with U UW on the grounds that “it ceases to require a supply of non-potable water from U UW”. Under clause 17.3 no termination charge is payable for termination after 1 April 2013.

¹² As noted in footnote 6, this determination applies to the disputed terms of the supply from U UW to IP(W)L only.

potable water so supplied to that Company commencing 1st April 2006....”.

- Clause 7.4.1 which provides that **“the Charges paid by the Company for non-potable water shall be adjusted annually in line with RPI”.**

(E) The parties’ submissions

(a) IP(W)L

The cost of supply

3.20 In its letter to Ofwat of 21 September 2010¹³, IP(W)L set out its position on what it believed a reasonable price should be and the factors that Ofwat should take into account in reaching its determination in this case.

3.21 Whilst acknowledging what IP(W)L described as Ofwat’s responsibility to ensure that no customer is given an advantage to the detriment of others, IP(W)L argued that:

- as the Barepot System supplies water to only three industrial customers, it is completely closed. There is, therefore, no risk that any other customer would be disadvantaged if IP(W)L, Eastman and Pentagon have their water supplied at “a reasonable price”¹⁴;
- the practice of relating a price to UUW’s standard non-potable tariff would be an inappropriate response as the water is completely un-treated and volumes consumed are very large, giving rise to significant economies of scale; and
- as UUW inherited the plant at no cost to UUW (because the costs had been fully-funded under previous agreements), a bottom-up approach to setting the reasonable price should be used in this case.

3.22 In IP(W)L’s view, therefore, the determined price should reflect the special characteristics of the Barepot System and the reasonable costs of operating

¹³ Letter from IP(W)L to Ofwat dated 21 September 2010 formally seeking a determination of the price of supply for non-potable water to the Workington Mill (including the annual adjustment in line with RPI).

¹⁴ *ibid*

and maintaining the exclusive infrastructure used for providing this service should be the starting point for calculating this price. However, based on cost figures supplied by UUW under previous agreements, IP(W)L considered that the real cost of supplying water to the three customers on the Barepot system is 4.41p/m³ (based on 2005/06 prices).¹⁵

3.23 IP(W)L also pointed out in their letter to Ofwat that the “excessive charges for water” that it incurs were having a detrimental effect on their business and were adversely impacting its international competitiveness. As a result, they felt it necessary to consider alternative water supply options. To this end, they had secured their own abstraction licence along with an old extraction point and pumping plant (the **Cloffocks System**) and also had commissioned consultants (Anglian Water Optimiser) to examine the costs involved in bringing the plant into use to supply the Mill.

3.24 Based on their initial examination, IP(W)L argued in their 21 September 2010 letter to Ofwat that if they chose to self-supply and operate their own plant in place of the UUW contract that “over the remaining 16 years of the contract, this represents an average, annual saving to us of nearly £1 million. This is a significant saving to a company such as ours and there is little doubt that we will take this step if this attempt to determine a reasonable price and terms under the existing contract fails.”

Annual Indexation

3.25 In addition to its concern about the level of the price being charged by UUW, IP(W)L also argued that the application of the full RPI to the price year-on-year is “wholly unsatisfactory” and that the Consumer Price Index (**CPI**) would provide a more realistic characterisation of consumer behaviour as it excludes mortgage interest and is a more comparable measure of inflation

¹⁵ IP(W)L based this estimate on UUW’s declared costs for operating and maintaining the Barepot system during 2005/06. These costs reflected the plant running as a full Water Treatment Plant with a full-time operator, but once IP(W)L had commissioned their own WTP Barepot was modified to operate as a simple pumping station with a visiting operator and remote monitoring. IP(W)L’s estimate of the cost of supply includes an adjustment to reflect this change. They also made adjustments to a number of the other cost elements, including a reduction in costs associated with maintenance and power. They also reduced the cost associated with the abstraction license – on the basis that the current licence’s costs (which are passed on to the customers by UUW) relate to a significantly higher abstraction volume than is actually used by the customers on the System.

internationally. Hence, they argue, the CPI should be used in this type of price formula and not the RPI.

3.26 IP(W)L also argued that as the principle of indexation is intended to compensate the supplier for unavoidable increases in cost throughout the life of the contract, and as the capital repayment element of the price is not subject to inflation, it should not attract any annual indexation. As this element, they argued, represents around half of the total, then “it follows that an appropriate indexation for the contract should be 0.5 x annual CPI”.

(b) UUW

The cost of supply

3.27 In its submission to Ofwat¹⁶, UUW outlined its position that the price for supplying non-potable water to IP(W)L would need to be at least 14.6p per m³ at 2006/07 prices to ensure that reasonable costs can be recovered and to ensure that the company is able to finance its functions in respect of providing services to customers.

3.28 In calculating this price, UUW indicated that they had considered a number of principles, including:

- Condition E of the Instrument of Appointment¹⁷;
- customer satisfaction; and
- avoiding stranded assets.

3.29 UUW also noted that as part of this process, they had consulted with the Ofwat Tariff’s Team to try to ensure that any potential issues (such as compliance with Condition E) were addressed prior to providing the customer with a price. Following discussion with Ofwat to facilitate the development of a pricing

¹⁶ UUW’s RFI response 27 May 2011.

¹⁷ Under Condition E the Appointee is required, in fixing or agreeing certain charges, to ensure that no undue preference is shown to, and that there is no undue discrimination against, any class of customers or potential customers.

model, U UW had adopted a two tier approach to set the tariff which involved using both a top-down and a bottom-up assessment of costs.

3.30 Under the top-down approach, U UW's starting point was the cost data it had provided to Ofwat as part of its June Return for the period 2005/06¹⁸. These costs were allocated to the Barepot System on a category by category basis¹⁹, using either actual or pro-rated costs. Categories of expenditure that would not apply to the Barepot supply were excluded to calculate the appropriate level of discount against the standard tariff. Under this top-down approach, the estimated tariff was 17.5p/m³ (at 2006/07 prices).

3.31 Under the bottom up approach, U UW estimated the tariff using forecasts for operating and capital expenditure associated with the Barepot System for the 20 year period starting with 2005/06.²⁰

3.32 The estimates for operating expenditure included both direct and indirect costs. The direct cost estimates were based primarily on historical information while estimates for indirect costs were based on an average from the previous three years' June Return data.

3.33 In relation to capital expenditure, the expenditure over the first three years of the agreement (i.e. from 2006) reflected the changes to the Barepot System which U UW had undertaken as a result of the switch from the supply of treated to coarse screened untreated non-potable water. U UW noted that it had incurred a cost of £1,394,000 as a result of this change (94% of which was incurred in 2007 and 2008).²¹. The estimates used were, according to U UW,

¹⁸ Appendix N, U UW's RFI response, 27 May 2011.

¹⁹ The categories used included employment cost, power, hired and contracted services, materials and consumables, services charges, other direct costs, and general and support expenditure.

²⁰ Appendix O, U UW's RFI response, 27 May 2011.

²¹ U UW's RFI response, 27 May 2011. The cost incurred by U UW was associated with the following work:

- Yearl Intake Pump House building and electrical equipment refurbishment
- New raw water abstraction flow meters
- Refurbishment of existing clarifiers for use as break-pressure tanks
- High-lift pump house building and electrical equipment refurbishment
- New surge suppression vessels on high-lift mains
- Security and telemetry improvements at Seaton Service Reservoir
- Repair to air valves and chambers on distribution mains to customers

based on the most up to date estimates of the cost of these changes at the time. A forecast was then included for anticipated maintenance spend across the 20 year period of the agreement. A rate of return of 7.3 per cent (pre-tax, as consistent with that determined by Ofwat for the period 2005-2010) was applied to a calculated “Regulatory Capital Value” of both the new and existing assets.²²

3.34 Using the forecast operating and capital maintenance spend for each of the twenty years of the agreement U UW then calculated the tariff that would be necessary to recover all identified costs. Under this approach, the estimated tariff was 14.6p/m³ at 2006/07 prices.

3.35 In their response to Ofwat, U UW point out that as the gap between the results generated using both approaches was relatively small, this provided them with “reassurance that the methodologies adopted gave a fair price for the service being provided, that was consistent with the way that other customers paid for their water. On the basis of these results, the tariff included within the 2009 Agreement was 14.9p.”²³

3.36 U UW subsequently provided Ofwat with updated estimates of the tariff using updated information from their 2010/11 June Return.²⁴ This **resulted in a revised bottom-up tariff of 13.9 p/m³ at 2010/11 prices.**

Annual Indexation

3.37 In relation to the most appropriate mechanism to index the price, U UW argued that RPI inflation represents the closest match to the company’s costs, both operating and capital expenditure, and is also consistent with Ofwat’s assessment of the cost of capital. They also pointed out that, as site specific costs have been assessed, it makes sense for the base price to be indexed by RPI for the duration of the contract, rather than additionally reflecting “K factors” which take account of movements in average costs throughout U UW. In order to maintain consistency with indexation applied in other parts of U UW’s

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- New supply meters at customers’ boundaries.

²² For regulatory accounting purposes U UW calculates the infrastructure renewal charge (IRC) using infrastructure renewal expenditure (IRE) over a fifteen year period, and depreciation is applicable for all non-infrastructure assets over their useful economic lives.

²³ U UW’s RFI response to Ofwat dated 27 May 2011.

²⁴ U UW’s RFI response to Ofwat dated 20 April 2012.

charges, they proposed that prior year-on-year November RPI be the basis of indexation.

(F) Our investigation

3.38 In order to inform our understanding of the nature of the dispute between the parties and the merits of the representations we received, we issued a number of RFIs to the parties. A chronology is set out in Appendix 3.

3.39 These RFIs were used to gather information on:

- The specifics of the Barepot System, including the:
 - services provided by U UW to IP(W)L;
 - assets involved in supplying the service
 - the volume of water delivered and consumed
 - the operating expenditure and capital costs incurred by U UW in providing the service;
- The costs that IP(W)L would incur in developing its own supply infrastructure and by-passing the Barepot System
- The parties' submissions on what they consider should be the basis for setting the price for the service and the basis for annual indexation.

3.40 In addition to the information provided by the parties, Ofwat also commissioned external consultants to provide an independent assessment of the assumptions underpinning the parties' cost models and to assist us in our analysis of the facts provided by them. This included:

- an assessment of the most appropriate cost of capital to be used in this and other price determination cases involving supply to large industrial customers. This was undertaken by Grant Thornton.
- an independent engineering review to verify the modelling assumptions and inputs used by the parties in their assessments of the costs of supply. This was undertaken by PA Consulting (PA) and included a detailed assessment of the capital maintenance and operating costs of the assets used by U UW to supply IP(W)L and other customers on the Barepot System and the assumptions underlying the model used by U UW in setting the disputed charge. In addition, PA also reviewed the information provided by IP(W)L in relation to the costs of self-supply.

(G) Our draft determination

- 3.41 We published our draft determination in this case on 10 October 2014. This set out our assessment of the information provided to us by the parties and the outcome of the independent assessments undertaken by PA and Grant Thornton. It also set out our provisional finding that the bottom-up or local accounting cost (**LAC**) approach used by U UW to calculate the price was appropriate given the discrete nature of the supply on the Barepot System. However, the draft determination also explained that a number of the assumptions underpinning U UW's model should be revised to correct for errors in the model, to reflect updated information on consumption and costs, and to take account of alternative approaches recommended by our independent experts.
- 3.42 In addition, we also applied the tests contained in our published framework which involved considering whether there were any geographical, efficiency or competition issues that would impact on our assessment of what a reasonable charge should be in this case. While our analysis supported the bottom-up approach used by U UW and did not identify any competition concerns as a result of this approach, it did highlight an efficiency concern.
- 3.43 This concern arose because of the specific circumstances of this case and the fact that IP(W)L has the option to terminate the 2009 agreement and develop its own supply infrastructure to by-pass U UW's existing infrastructure. Should IP(W)L choose to exercise this option because it considers that it can supply its needs more cheaply than U UW, U UW would continue to incur on-going operational and capital maintenance costs (due to the necessity to supply the other two customers on the Barepot System) but would no longer receive the majority of the revenue associated with the system from IP(W)L.
- 3.44 To inform our understanding of the issues involved, therefore, the cost assumptions underpinning IP(W)L's self-supply model were also subjected to independent scrutiny. As a result, a number of these assumptions were revised to reflect updated information on consumption and costs or alternative approaches recommended by our independent experts, PA. These revised cost estimates were then compared with U UW's revised costs. In doing so, however, we also highlighted the need to distinguish between each party's total costs of supply, including sunk costs specific to the supply, and their forward looking costs of supply without these sunk costs. In our draft determination, we noted that this distinction was important as it recognises the fact that U UW had already incurred the capital costs of investing in the Barepot System prior to October 2009 when the relevant supply request had to be met, and a significant

proportion of these costs are effectively sunk. As a result, the on-going or forward looking costs that it would incur in supplying IP(W)L would consist of the costs of operating and maintaining the Barepot infrastructure. In contrast, IP(W)L's forward looking costs would include not only the costs of operating and maintaining its own Cloffocks System but also the significant capital expenditure required to develop this infrastructure further to enable self-supply.

- 3.45 In our draft determination, therefore, we concluded that, while IP(W)L's total costs of supply would be **lower** than U UW's total cost of supply, their forward looking costs would be significantly **higher** than U UW's forward looking cost. We explained that, in our view, it would be more efficient for the party with the lowest forward looking costs, in this case U UW, to provide the supply.
- 3.46 In forming a judgement on what the reasonable price of supply should be in this case, we therefore had regard not only to U UW's total costs (as measured by its LAC) but also to U UW's and IPW(L)'s respective forward looking costs. On the basis of this analysis we provisionally concluded that the price for the supply of non-potable water from U UW to IP(W)L should be set at a level which was no higher than IP(W)L's forward looking costs, i.e. 7.5 p/m³ at 2006/07 prices.
- 3.47 While this price was set at a level which was slightly below U UW's total cost of supply as measured by its LAC, we provisionally concluded that it would enable U UW to recover all of the forward looking costs that it would incur in supplying IP(W)L via the Barepot System and to make a reasonable return on capital. In addition, it would also ensure that U UW received a significant contribution towards its sunk costs relative to a situation where IP(W)L chose to self-supply.
- 3.48 In relation to the issue of annual indexation, we provisionally determined that RPI is an appropriate indexation for the price of non-potable water in the agreement being determined in the present case. The use of RPI aligns the price indexation of non-potable water bulk supply to other parts of the U UW's business, and we did not consider that there were sufficiently compelling reasons to deviate from RPI in this case.

(H) Responses to our draft determination

- 3.49 The parties and other interested stakeholders were invited to make representations to us on this draft determination and, in particular, to provide comments on how we had applied our published framework in this dispute. We

also invited views on the different factors, and the materiality of those factors, which may affect the costs of providing bulk water to large users.

3.50 While IP(W)L chose not to make any representations on our draft determination, UUW wrote to us on 14 November 2014 setting out their views on various aspects of the approach that we had used and also the analysis that we had undertaken in reaching our draft determination. In addition, we also received five other responses to the public consultation²⁵. An overview of the issues raised by these respondents and Ofwat's response to them is set out in **Appendix 4**.

(I) Further Negotiation between the Parties

3.51 In the period whilst Ofwat was considering the responses to the draft determination the parties conducted further negotiations between themselves to attempt to agree the issues referred to Ofwat. However, Ofwat was advised on 20 July 2015 that agreement had not been reached despite those further negotiations. In a letter dated 31 July 2015, UUW subsequently submitted further representations in relation to Ofwat's draft determination.

(J) Draft determination in relation to Dŵr Cymru and Tata Steel

3.52 In July 2015, Ofwat published a draft determination, under section 56 of the Act, of terms for the supply of non-potable water from Dŵr Cymru to Tata Steel UK Limited. On 21 August 2015 UUW submitted a response to Ofwat in relation to that draft determination, which made a number of points concerning the UUW / IP(W)L determination.

²⁵ Responses were received from CCWater, three appointed water companies and a new appointee.

4. Our final determination

4.1 This section sets out Ofwat’s final determination of the price for the supply of non-potable water from U UW to IP(W)L, including the method of annual indexation for that price.

(A) Our analytical approach

- Our analytical approach has been taken in the context of the legal and analytical framework set out in Chapter 2. Specifically, section 56(1)(b) WIA91 provides for Ofwat to determine the disputed terms and condition of an agreement “**according to what appears to [Ofwat] to be reasonable**”. In addition, section 56(5)(b) of the Act provides that in making this determination, Ofwat “**must have regard to the desirability of the relevant water undertaker –**
- recovering the expenses of complying with its obligations under section 55 of the Act; and
- securing a reasonable return on its capital”.

4.2 In reaching our determination of the “**reasonable**” price for the supply in this case, therefore, we have:

- considered the approach that U UW has used to calculate the price contained in the 2009 agreement;
- examined the relevant costs that underpin that price and subjected each of those cost elements to internal and external scrutiny;
- reviewed the cost of capital used by U UW and considered whether this is reasonable given the particular circumstances of the supply and;
- re-calculated U UW’s cost of supply to reflect updated information on consumption and costs and to take account of the alternative approaches recommended by our independent experts.
- The results of this analysis are set out in section (B).

4.3 In addition, to inform our judgement of what a reasonable charge is in this case, we have applied the relevant sections of our published framework for resolving pricing disputes involving a bulk supply of water or sewerage services which is described in Chapter 2, insofar as is consistent with the relevant statutory criteria in section 56 WIA91. The outcome of this analysis is set out in section (C) below.

(B) Our assessment of the expenses incurred by U UW in operating and maintaining the Barepot System

- 4.4 In referring this case to Ofwat, IP(W)L argued that the determined price should reflect the special characteristics of the Barepot System and that the price should reflect the reasonable costs of operating and maintaining the exclusive infrastructure used for providing this service.
- 4.5 In their submissions to Ofwat, U UW explained that the price included in the 2009 agreement had been calculated using a bottom-up approach to reflect the specific local costs of the Barepot System (i.e. the price reflected Local Accounting Costs (**LAC**) rather than Average Accounting Cost (**AAC**)).
- 4.6 Neither party therefore disputed the LAC approach taken by U UW to calculate the cost of supply in this case, but rather the dispute revolved around the reasonableness of the costs that U UW included in its calculation.
- 4.7 Ofwat considers that the price being disputed or the “business as usual” price is the appropriate starting point in this case²⁶. Our assessment has therefore focused on the reasonableness of the costs that U UW included as the basis for calculating the disputed price to determine whether the disputed price has been based on robust information on the relevant costs.
- 4.8 As part of our investigations into this dispute, U UW provided us with a detailed model²⁷ setting out the assumptions that it had included to determine the disputed price. This model, and subsequent revisions and updates provided by U UW, were reviewed by Ofwat and also by external experts.
- 4.9 PA was commissioned to carry out an independent assessment of the capital and operating expenditure which U UW had allocated to the Barepot System. Their terms of reference were to assess the information provided by U UW from an engineering perspective and to either validate the costs which U UW had included or to provide alternative estimates where PA found that U UW’s original costs were, in their view, either over or under-stated.

²⁶ In its response to our draft determination, U UW did not challenge the use of the price being disputed as the starting point for our determination.

²⁷ U UW’s RFI response, April 2011. Appendix O, Cost allocation – bottom-up,

- 4.10 This analysis highlighted a number of issues relating to U UW’s allocation of costs to the Barepot System and also to U UW’s assumptions about planned maintenance²⁸. While U UW subsequently provided Ofwat with a revised model and a revised tariff estimate,²⁹ PA also identified a number of other factors that, if taken into account, would impact on the assessment of the cost of supply in this case. PA noted, for example, that the updated figures provided by U UW indicated that the volume of water consumed by customers on the Barepot System was higher than anticipated under the 2009 Agreement. Furthermore, they also questioned the appropriateness of the capital maintenance and asset refurbishment expenditure included by U UW in their model (as U UW’s model includes provision for substantial capital replacement in the last four years of the contract period) and also the period over which this expenditure was recovered.³⁰
- 4.11 In addition to the examination of U UW’s operating and capital maintenance costs, our assessment also considered the appropriateness of the weighted average cost of capital (**WACC**)³¹ which U UW had used in its model. This assessment was informed by research undertaken by Grant Thornton to assess whether U UW’s company-wide WACC was appropriate to compensate U UW for any additional “non-diversifiable³²” risks that it incurred in supplying water to a large industrial user such as IP(W)L.
- 4.12 The approach taken by Grant Thornton in its assessment is set out in **Appendix 5**. In summary, Grant Thornton considered that demand from large
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²⁸ PA had noted, for example, that U UW had mistakenly included £809,000 for a bio-gas engine in its original model.

²⁹ This is referred to as U UW’s base model in PA’s scenarios.

³⁰ PA noted that the U UW model assumed that all asset expenditure is recovered during the contract period, irrespective of the life of the asset. Whilst recognising that this is a financially prudent strategy for U UW (as it helps to minimise the risk of U UW being left with unrecovered cost should it find itself with stranded assets if IP(W)L failed to renew the contract), this approach to cost recovery can have an impact on the cost of supply to customers – and developed a number of scenarios to demonstrate the impact. In general, however, Ofwat is of the view that it is reasonable for U UW to recover the costs of the infrastructure used for the supply over the life of the contract rather than the life of the assets, as this is consistent with the use of local accounting costs to determine the price and also, given the discrete nature of the Barepot System, would ensure that only those customers that are benefiting from the investment in the infrastructure, are exposed to any risk should the assets become stranded.

³¹ The WACC is a calculation of a firm’s cost of capital in which each category of capital is proportionately weighted. All capital sources - common stock, preferred stock, bonds and any other long-term debt - are included in a WACC calculation.

³² Investors should only be rewarded for risks that cannot be “diversified” away. They are also called “systematic” risks.

users such as IP(W)L tends to be more variable in response to fluctuations in general economic conditions when compared to demand for potable water from households. They also noted that in an industry characterised by the presence of substantial fixed costs, this greater demand volatility reduces a suppliers' certainty of cost recovery. In view of the fact that U UW's major source of revenue derives from supplying potable water to households, which has a more stable and predictable pattern of demand, Grant Thornton considered that U UW's regulated cost of capital might not sufficiently compensate for the additional "non-diversifiable" risks that U UW incurs in supplying IP(W)L via the Barepot System.

4.13 As a result, Grant Thornton concluded that the differences in "non-diversifiable" risks are sufficiently material that it would be appropriate to provide an uplift to U UW's company-wide cost of capital to reflect the additional risk.

4.14 Having examined each of the individual cost elements included in U UW's model, PA were asked to use this model to develop a range of alternative scenarios showing the impact on the cost of supply of:

- rectifying errors in U UW's original model;
- taking account of the alternative approaches to capital replacement and asset maintenance;
- reflecting the situation where costs are recovered over the life of the asset or life of the contract;
- capturing the activity-specific cost of capital recommended by Grant Thornton; and
- reflecting updated information on the volume of water consumed by customers on the Barepot System.

4.15 The range of alternative scenarios developed by PA Consulting, and the impact on U UW's costs of supply, is summarised in Table 2.

4.16 The parties were provided with an opportunity to review and comment on the approach used to review U UW's costs of supply in this case as our provisional findings, and the analysis which underpinned those findings, were shared with them as part of the consultation on our draft determination. Neither party challenged the specific changes to U UW's model proposed by PA, nor Ofwat's assessment of the most appropriate scenario. While U UW did question the appropriateness of retrospectively altering the "inputs" to their model to take account of more up to date information, Ofwat is satisfied that in forming a judgement in this case, it is reasonable to do so on the basis of the most up to

date information available. A fuller description of UUW's representations on our approach and our response to those representations is set out in **Appendix 4**.

4.17 Although our overall approach to the assessment of UUW's costs has not changed as a result of representations on our draft determination, there have been a number of changes to the cost of capital used for modelling the scenarios. As a result of a revision of UUW's company-wide WACC used for the PR14 price control³³, we consider that it is appropriate to revise the activity-specific cost of capital used in this case. The updated figure is now 4.62%. In addition, we have determined that in order to ensure consistency with the approach used in re-modelling IP(W)L's cost model and also with the approach used in other price determination cases, the activity-specific cost of capital should be used throughout the life of the contract.³⁴ The application of activity specific cost of capital to the whole contract period ensures a consistent return to companies' investments. Moreover, the updated WACC of 4.62% reflects our best estimate of the long-run activity specific cost of capital at the time of making this determination. Although the estimate of appointee WACC used in the context of a price control may deviate from the current level in different control periods, for a long term price determination across several price controls, we consider it is proportionate to use the best estimate of the long-term cost of capital at the time of determination for the whole contract period, rather than repeatedly making amendments to, or re-opening, the cost of capital elements of a price determination when each price control begins.

The results for the updated scenarios are shown in the following table.

Table 2: The cost of supply using UUW's bottom-up model (at 2011/12 prices)

Scenario	Original Volume p/m3	Original Volume with WACC p/m3	Revised volume with WACC p/m3
UUW Base model	13.9	13.0	10.8
UUW Base model with revised Biogas capex	13.2	12.3	10.3

³³ Ofwat's final determinations under Price Review 2014 were published in December 2014.

³⁴ In our draft determination, UUW's model had used company-wide WACC for the period since 2006 and the activity-specific cost of capital recommended by Grant Thornton for future years only.

Scenario	Original Volume p/m3	Original Volume with WACC p/m3	Revised volume with WACC p/m3
Adjust all capital maintenance to recoup over full asset life	12.3	11.2	9.4
Review each capital maintenance item and apply a likelihood factor	12.5	11.5	9.6
Adjust all capital maintenance to recoup over full asset life and apply the likelihood factor above	12.1	11.1	9.2
Retain major asset refurbishment only; apply full asset life. For all other maintenance provide a standard maintenance allowance of £20,000 with periodic capital refresh	12.3	11.3	9.5
Retain major asset refurbishment only; apply full asset life . For all other maintenance provide a standard maintenance allowance of £20,000 with periodic capital refresh; enhance maintenance to extend asset life to contract end.	12.3	11.3	9.5
Retain major asset refurbishment only; apply contract period . For all other maintenance provide a standard maintenance allowance of £20,000 with periodic capital refresh; enhance maintenance to extend asset life to contract end.	12.7	11.7	9.8

Source: PA Consulting

4.18 Having reviewed the range of scenarios modelled for us by PA and based on our assessment of the costs incurred by U UW in providing the supply to IP(W)L, Ofwat:

- is satisfied that U UW’s original model over-states the cost of supply in this case and that provision should be included to take account of updated information on consumption volumes,
- considers it reasonable that the WACC used to calculate U UW’s cost of supply should take account of the increased risk associated with the supply,
- recognises the merits of U UW recovering its costs over the life of the contract rather than the life of the assets, but
- considers that, in view of the issues raised by PA as part of their independent engineering review, and in particular the concern over U UW’s plans to undertake substantial capital replacement in the last four years of the contract, it is appropriate to provide for a standard maintenance allowance of £20,000 with periodic capital refresh and enhanced maintenance to extend asset life to contract end.

As a result, we consider that 9.8 p/m³ (at 2011/12 prices) represents a reasonable reflection of U UW's total costs of supply in this case.

(C) Applying the published framework in this case

4.19 In Chapter 2 we describe how, when Ofwat makes bulk supply price determinations under its various statutory powers, Ofwat seeks where appropriate to act consistently in dealing with issues which are common to all of them, and has developed the published framework for this purpose. The published framework has been used in this case to inform our assessment of the most appropriate **measure** of costs to which we should have regard to the desirability of, for the purpose of section 56(5)(b) of the Act. This, in turn, informs our judgement of what a "**reasonable**" price should be for U UW's supply of water to IP(W)L for use at the Mill.

4.20 Specifically, we have considered whether determining the price for the supply having regard to U UW's LAC would cause material adverse effects. In particular, we have examined whether the use of U UW's LAC:

- i. is appropriate given the geographic nature of supply;
 - would give rise to competition concerns; and
 - would give rise to efficiency concerns.

Our assessment is set out below.

a) The geographic nature of the supply

4.21 As noted previously, the price contained in the 2009 agreement was calculated by U UW using a bottom-up approach to reflect the specific costs involved in supplying customers on the Barepot System. This is a LAC approach and it was not disputed by IP(W)L. Nevertheless, Ofwat has considered whether this approach is reasonable given the circumstances of this case.³⁵

³⁵ In our published framework we explain that, in many instances, the price being disputed or "business as usual" price will have been set on the basis of a top-down approach using average accounting costs

- 4.22 Our assessment has been informed by U UW’s confirmation that all the assets of the Barepot System, up to and including the service reservoir, are utilised exclusively to provide IP(W)L and the two other non-domestic customers on the Barepot System. Dedicated mains are then used to deliver the water to each customer premises after the service reservoir.
- 4.23 U UW has also confirmed that although the supply is geographically located within the West Cumbria area, the River Derwent abstraction is independent of U UW’s potable water supply system and therefore does not form part of the West Cumbria Water Resource Zone.
- 4.24 In this case, therefore, we are satisfied that the LAC approach used by U UW is appropriate and, in principle, adequately reflects the relevant costs of water provision to IP(W)L.

b) Competition concerns

- 4.25 The second test set out in our published framework involves a consideration of whether setting a price having regard to U UW’s LAC could give rise to any competition concerns, which include preventing entry by more efficient providers (e.g. self-supply by IP(W)L)
- 4.26 As a general point, Ofwat would not want to set a price that prevented the most efficient company from providing the service. The most efficient outcome would be for the company with the lowest **forward looking costs** to provide the service. This is because efficiency will be maximised when the service is provided by whichever company can do so by incurring the lowest costs in the future, taking account of any assets or infrastructure that each company already has in place and the nature of customer requirements.

(AAC). This approach generally provides a practical and proportionate means of reflecting the cost of provision, and is consistent with what has been, to date, the mode of cost assessment in the water sector. The framework recognises, however, that there may be circumstances where it is appropriate for the “business as usual” price to not be based on an AAC approach. In this case, the “business as usual” price was based on a LAC approach which we went on to consider as set out in paragraphs 4.20 to 4.67.

- 4.27 For any company, forward looking costs reflect the future costs of undertaking versus not undertaking a certain activity. For a company already providing a service (such as U UW providing water through the Barepot System), this will reflect the costs it would avoid from ceasing to provide the service.³⁶ In the context of this case we consider that forward looking costs should include all costs, except for the costs of replacing existing infrastructure which will not be needed during the proposed contract term. For a company that is not already supplying a service (i.e. a potential new entrant), its forward looking costs will reflect the additional costs it will incur from starting to provide the service in question and then continuing to provide it for the period the relevant customers need the service for.³⁷ In the context of this case that would include all costs including the development of new infrastructure.
- 4.28 If a new entrant's forward looking cost is lower than that of U UW, it would be more efficient for the new entrant to supply water. However, in this case, our analysis confirms that that situation does not apply.
- 4.29 In this case, the forward looking costs that U UW will incur if it continues to supply IP(W)L will include the operating expenditure associated with the supply and the costs of maintaining its existing infrastructure. As U UW has already incurred the capital costs of investing in the Barepot System (a significant proportion of which are effectively “**sunk**”³⁸), its forward looking costs are significantly lower than its total cost of supply, as measured by LAC. In contrast, IP(W)L's forward looking costs will include not only the costs of operating and maintaining its own Cloffocks System but also the significant expenditure that will be required to build and commission the new infrastructure.
- 4.30 As what matters in relation to consideration of competition concerns in the context of this determination are the *relative* levels of U UW's forward looking costs and IP(W)L's forward looking costs, we do not intend to calculate a precise estimate of U UW's forward looking cost. Instead, we are interested in understanding the forward looking costs, excluding the replacement of capital assets which do not need replacement in the life of the specific supply contract

³⁶ These are also referred to as “**long run avoidable costs**” – as these are the costs that U UW would no longer incur (or could avoid) if it ceased to provide the service.

³⁷ This is also referred to as “**long run incremental costs**”.

³⁸ A sunk cost is a cost that has already been incurred and cannot be recovered.

concerned. We have derived a measure of forward looking cost by removing U UW's 'sunk' capital expenditure from the costs included in the model. The capital expenditure of opening RCV in 2006³⁹ was incurred prior to the contract, and is a cost to U UW even if it does not supply water to IP(W)L, and thus is 'sunk'. After removing opening RCV associated with the water supply to IP(W)L in the cost model, U UW's cost is 7.8 p/m³ (at 2011/12 prices).⁴⁰

4.31 On the basis of this analysis, therefore, we consider that there are no material competition issues that would warrant moving away from setting prices equal to U UW's LAC.⁴¹

c) Efficiency concerns

4.32 The final test applied from our published framework involves a consideration of whether there are any additional efficiency concerns that would warrant moving away from basing the price on U UW's costs – in this case, assessed using a LAC costing methodology.

4.33 In general, the aim of this test is to determine whether using this approach could result in an inefficient outcome e.g. whether it enables inefficient firms to enter the market profitably. As discussed above, Ofwat considers that the most efficient outcome is for the company with the lowest forward looking costs to provide the service to meet customers' demands, whether it is a new entrant or an existing supplier.

4.34 As illustrated in the following example, however, there may be circumstances where setting price equal to LAC could result in inefficient entry. In this instance, an entrant could undercut U UW's LAC-based price, making it profitable to enter, even though it is actually less efficient than U UW as its forward looking costs are higher. This is illustrated in Figure 1.

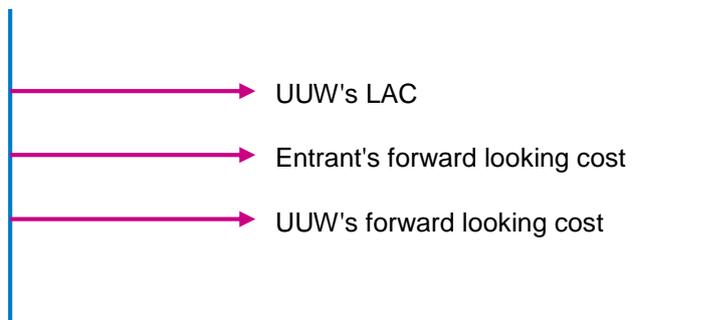
p/m³

³⁹ Opening RCV is a measure of U UW's historical capital investment.

⁴⁰ This estimate of forward looking costs is based on the same scenario selected for U UW's LAC.

⁴¹ A number of queries relating to the wider competition impact of our approach were raised in response to our draft determination. These, and our response to the issues raised, are set out in Appendix 4 (and in particular, section 3 (a) of Appendix 4).

Figure 1



4.35 In this case, these efficiency considerations become relevant because of the fact that IP(W)L has been actively considering the option of by-passing UUV's Barepot System and "**entering the market**" by developing its own self-supply infrastructure.

4.36 In considering the merits of IP(W)L's claim, Ofwat has taken account of the fact that IP(W)L has already demonstrated its willingness to by-pass UUV's supply system. This is evidenced by the installation of its own water treatment infrastructure in 2006. In addition, IP(W)L has also acquired the Cloffocks Systems and has commissioned detailed studies to establish the capital and operating expenditure associated with operating its own full self-supply infrastructure. Moreover, under the 2009 agreement, IP(W)L negotiated a provision to enable it to terminate the agreement at three months' notice⁴².

4.37 Ofwat considers that there is a credible risk, therefore, of IP(W)L choosing to exercise this option and enter the market. For the reasons set out below, Ofwat considers that this would not represent the most efficient outcome either for the parties to the dispute or for UUV's customers more generally.

4.38 As explained previously, because UUV has already incurred the capital costs of investing in the Barepot System (a significant proportion of which are effectively "**sunk**"), its forward looking costs will consist of the on-going operating expenditure associated with the supply and the costs of maintaining the existing infrastructure. In contrast, IP(W)L's forward looking costs will include not only the costs of operating and maintaining its own Cloffocks

⁴² It is open to IP(W)L to terminate the agreement with UUV on the grounds that "it ceases to require a supply of non-potable water from UUV". Under the terms of the 2009 agreement, no termination charge is payable for termination after 1 April 2013.

System but also the significant expenditure that will be required to build and commission the new infrastructure. As what matters to this determination is the relative order of U UW's and IP(W)L's forward looking costs, we have estimated an upper bound of U UW's forward looking cost to be 7.8 p/m³ at 2011/12 prices

4.39 In this case, therefore, although IP(W)L's forward looking costs could prove to be lower than U UW's total cost of supply (as measured by LAC), they could be significantly higher than U UW's forward looking cost. If this were the case, Ofwat considers that, in this specific case, the most efficient outcome would be for U UW to continue to supply IP(W)L using the Barepot System. However, if we determine a price, having regard to U UW's LAC only, IP(W)L could choose to "enter the market". Taking this case on its own, our static view of efficiency (i.e. ignoring changes in behaviour) is that the lowest overall cost impact is for the existing infrastructure to continue to be used to supply IP(W)L and the other two customers rather than duplicating asset costs by building new infrastructure to serve IP(W)L. We do not consider that there would be any clear dynamic benefits (i.e. more efficient use of resources in the future) from alternative entry because U UW can expect to be able to recover the remaining sunk costs of its assets from the RCV as part of its overall revenue caps.

IP(W)L's cost of self-supply

4.40 To inform our consideration of these potential efficiency issues, therefore, Ofwat undertook a detailed analysis of the costs that IP(W)L is likely to incur if they choose to develop their own supply infrastructure.

4.41 To assist us in this analysis, Ofwat commissioned PA to subject the information provided by IP(W)L on the planned costs of supplying water using the Cloffocks System to independent scrutiny and challenge. PA were asked: to examine the engineering assumptions which IP(W)L had included in their cost model; to validate whether those assumptions and accompanying cost estimates were appropriate; and to recommend alternative engineering assumptions and cost estimates where PA considered that the inputs to the IP(W)L model were under (or over) specified. In addition, Grant Thornton was asked to review the cost of

capital used by IP(W)L in their model and if, appropriate, recommend an alternative figure.⁴³

4.42 Using IP(W)L's cost model, PA developed a range of scenarios to measure the impact on IP(W)L's costs of:

- taking account of the alternative engineering assumptions and cost estimates which PA recommended following their review;
- capturing the revised cost of capital recommended by Grant Thornton; and
- reflecting updated information on the volume of water consumed via the Barepot System.

4.43 Our provisional assessment of these scenarios and the analysis undertaken by PA and Grant Thornton was shared with the parties as part of the consultation process on our draft determination. While IP(W)L chose not to make any further representations on our draft determination (or to challenge any of the proposed amendments to the engineering and cost assumptions recommended by PA), U UW believed there to be a number of concerns with the analysis.

4.44 In particular, U UW argued that, notwithstanding the changes already proposed by PA, the self-supply model was still under-specified and the costs of self-supply under-stated. U UW highlighted a number of additional elements that it considered should be included in the self-supply option as well as a number of areas where it considered the cost estimates should be subject to significant upward revision. These included, for example, the need for a full Environmental Impact Assessment, provision to reflect a higher risk of encountering problems due to contaminated land, or the need for more frequent dredging.

4.45 U UW also argued that the functionality of IP(W)L's self-supply option is underspecified when compared to U UW's existing supply infrastructure and that service and resilience levels are not equivalent, leading to a higher risk of supply disruption. In particular, U UW noted that while the existing supply

⁴³ Grant Thornton did not find any material differences between the "non-diversifiable" risks incurred by U UW in supplying IP(W)L via the Barepot System, and the "non-diversifiable" risks incurred by IP(W)L in self-supplying. Under both options, the relevant "non-diversifiable" risks were considered to be similar as both activities are characterised by the presence of substantial fixed costs and subject to virtually the same volatility. A summary Grant Thornton's approach is set out in Appendix 5.

infrastructure uses dual pipes, IP(W)L's proposed infrastructure was based on a single-pipe design. Moreover, U UW also questioned whether there was adequate storage provision or whether allowance should be made for a secondary supply. These issues, in its view, rendered any comparison between U UW's cost of supply and IP(W)L's cost of self-supply invalid.

4.46 In order to address the concerns, Ofwat commissioned PA to undertake further analysis of IP(W)L's self-supply option⁴⁴. Specifically, PA were asked to:

- consider the merits of the issues raised by U UW and the alternative engineering assumptions and costings that it had proposed; and
- model the impact of these alternative assumptions on IP(W)L's self-supply costs.

4.47 PA assessed these issues under three broad categories:

- **General estimation** - to address U UW's contention that elements of the capital and operational expenditure were underestimated.
- **Risk allowance** – to address U UW's contention that the risks of self-supply had not been adequately captured either in IP(W)L's original feasibility study or PA's subsequent revisions.
- **Equivalence service** – to address U UW's contention that IP(W)L's proposed new build did not provide for an equivalent level of service to that currently provided by U UW.

4.48 To inform their follow-on assessment, information provided by U UW and IP(W)L on the incidences of supply-disruption caused, for example, by pipe-bursts was also examined by PA. This information was assessed both by Ofwat's engineers and by PA and was also benchmarked against evidence of supply-disruptions held by Ofwat from previous June Returns. In addition, Ofwat also sought clarification from IP(W)L on its view of the operational risks associated with the proposed self-supply infrastructure and on the adequacy of the contingency contained in its plans.⁴⁵

⁴⁴ As part of their assessment of IP(W)L's proposed self-supply infrastructure, PA also took account of the existing service levels contained in the Operating Agreement between U UW and IP(W)L. This included, for example, the timeframe within which U UW would endeavour to restore the supply to the Mill in the event of a disruption.

⁴⁵ Email from Ofwat to IP(W)L dated 24 February 2015. IP(W)L replied on 27 February 2015.

- 4.49 Furthermore, as a result of further internal analysis of IP(W)L's estimated operating costs and a comparison with the operating costs incurred by U UW, Ofwat considered that further revisions were necessary. This category of costs was included in U UW's cost model as part of their retail services but was not included in IP(W)L's original self-supply model. To ensure greater consistency of approach Ofwat determined that it would be appropriate to apply a 10% uplift to the principal operational expenditure to capture these un-modelled costs.⁴⁶
- 4.50 Similarly, we also asked PA to model the impact of including a separate provision to capture the impact on IP(W)L's rateable valuation should it develop its own supply infrastructure, as Local Authority rates are included separately in U UW's cost model. The impact on IP(W)L's costs (using U UW's rates as a proxy) is shown in Tables 3 and 4 below. However, IP(W)L has informed us that these costs are already captured as a fixed cost for the paper-mill business and that they have been advised that any additional impact on their rateable valuation would be minimal.
- 4.51 PA expanded the range of scenarios it had developed to measure the impact of adjusting IP(W)L's self-supply costs to address the issues raised by U UW and Ofwat. In addition, they also updated their scenarios to reflect the revision to IP(W)L's cost of capital necessitated by the change to PR14 WACC on which was it based.
- 4.52 The results of PA's scenario analysis are summarised in Table 3. These are shown under the following headings:
- **Draft determination.** This heading shows the results of IP(W)L's self-supply model based on the capital and operating expenditure used in our Draft Determination. The model has, however, been updated to take account of the updated cost of capital figure provided by Grant Thornton post-PR14.
 - **Risk based.** Under this heading, the model has been revised to take account of the issues raised by U UW in relation to the general estimation of costs. Each of the issues raised has been assessed by PA and a likelihood and impact allocated. In some instances, PA has increased the cost input to reflect the risk that a full Environmental Impact Assessment (EIA) would be needed or that problems would be

⁴⁶ This was estimated by Ofwat using information on operating expenditure from other cases.

encountered due to mining in the local area or with contaminated land, though in others, PA considers that the existing model adequately captures the risks.

- Comparator.** This scenario builds on the risk-based scenario but includes additional cost provision to address U UW’s concerns about the equivalence of service. This includes, for example, additional costs to cover the use of a dual-pipe rather than single pipe infrastructure and also to allow for increased storage capacity. These design features are not part of IP(W)L’s existing planned infrastructure, nor does IP(W)L consider that this level of contingency is necessary to provide the service that it needs.⁴⁷ Nevertheless, these costs have been included to more closely reflect the infrastructure currently used by U UW and the level of contingency that it provides. This has the effect of adding almost £0.5 million to the cost of self-supply.
- Scale Impact:** This models the full impact if virtually all of U UW’s alternative cost estimates are accepted. This captures, for example, the costs of undertaking a full EIA (though PA do not consider that this is necessary); the costs of re-routing pipework because of the location of local mines (which PA considers to be very unlikely); the costs of dealing with contaminated land along the full length of the supply route (which PA considers to be very unlikely), as well as costs due to the need for more frequent dredging (which PA considers is adequately captured in the existing modelling). This is in addition to the costs of dual-pipe and increased storage.

Table 3: Estimates of IP(W)L’s costs of self-supply (p/m³ 2011/12 prices)

Scenario	a) Draft Determination	b) Risk-based	c) Comparator	d) Scale Impact
Revised capital, new operating expenditure	9.0	9.1	9.2	10.0
Revised capital, new operating expenditure and Local Authority rates	9.2	9.2	9.4	10.2

Source: PA Consulting

⁴⁷ IP(W)L’s reply to Ofwat, 27 February 2015.

4.53 In addition to the specific representations on the costs included in IP(W)L’s self-supply model, UUW also argued that the cost estimates associated with the proposed solution are subject to significant uncertainty and greater allowance should be made for potential risk.

4.54 PA was asked to consider this issue again. In their subsequent report to Ofwat, they noted that IP(W)L’s proposed new infrastructure is not complex and that IP(W)L’s plan already includes a contingency which, in PA’s view, is above the norm for such a development. PA also noted that, as part of their review, they had considered all of the issues raised by UUW in detail and modelled the impact on IP(W)L’s self-supply costs in full, or on a risk-based basis. Nevertheless, at our request, PA also provided estimates of the impact on IP(W)L’s costs of applying a 10% contingency across the whole project as well as including an additional allowance (of £100,000) to reflect “unknown” risks. This contrasts with PA’s original approach which was to apply 10% contingency across the project build and to include a risk allowance against each specific risk.

Table 4: Estimates of IP(W)L’s costs of self-supply in p/m³ at 2011/12 prices– with additional 10% contingency across the whole project and provision for unknown risks.

Scenario	a) Draft Determination	b) Risk-based	c) Comparator	d) Scale Impact
Revised capital, new operating expenditure	9.2	9.2	9.4	10.2
Revised capital, new operating expenditure and Local Authority rates	9.3	9.4	9.6	10.3

Source: PA Consulting

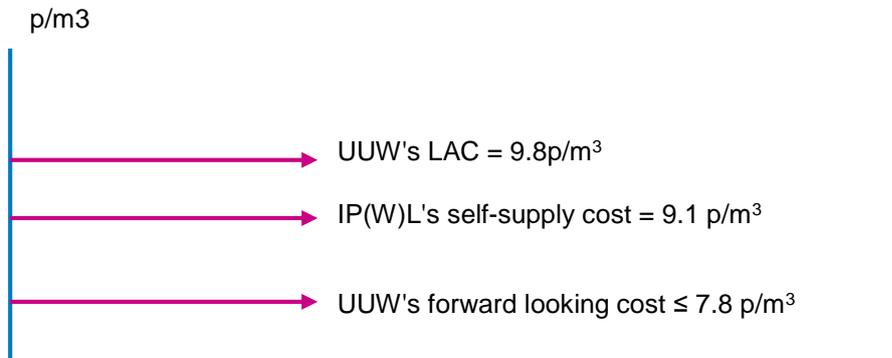
4.55 Having considered the representations received from UUW and the analysis undertaken by PA, Ofwat accepts that adjustments to the approach used in the **draft determination** are necessary to take account of some of the issues raised by UUW. However, we also consider that the scenario labelled **scale impact** does not provide a reasonable reflection of IP(W)L’s potential cost of supply in this case as the independent analysis undertaken by PA demonstrates that the engineering assumptions and cost estimates which are reflected in this scenario are unnecessary or over-stated.

- 4.56 Ofwat has also taken note of the arguments put forward by U UW about the equivalence of its existing supply infrastructure relative to IP(W)L’s proposed self-supply infrastructure. These are modelled in the **comparator** scenario above. However, we consider that it is reasonable for Ofwat to base its assessment of IP(W)L’s cost of self-supply on IP(W)L’s proposed infrastructure design rather than on a “notional” infrastructure which is designed to mirror the historical infrastructure currently in place. In reaching this view, we have also noted IP(W)L’s confirmation that a dual pipe system and increased storage facilities are not necessary to provide the level of contingency it needs to supply the Mill.
- 4.57 Ofwat therefore considers that the **risk-based** scenario provides a robust and more accurate reflection of the costs associated with IP(W)L’s self-supply option which takes account of the independent assessment of the issues raised by U UW in their representations to us. We also consider that as part of this risk-based approach, additional risk allowances have been included to address the specific points raised by U UW – even when, in many instances, our independent engineers do not think they are strictly necessary. We do not, therefore, consider that it is appropriate to include a further contingency (as advocated by U UW) to capture these “un-known, un-knowns”.
- 4.58 Finally, in light of IP(W)L’s assurances that the costs of Local Authority rates are already captured as a fixed cost for the paper-mill business (and given the fact that the impact on unit costs is relatively minor) we consider that the scenario excluding these cost provides a reasonable reflection of the costs that IP(W)L would incur if it chose to self-supply.
- 4.59 Having considered the information provided by IP(W)L in response to our RFIs and the findings which have emerged as a result of PA’s independent engineering review of the cost that IP(W)L is likely to incur in order to self-supply, we consider that **9.1 p/m³ at 2011/12 prices** provides a reasonable estimate of IP(W)L’s cost of self-supply⁴⁸.
- 4.60 While our analysis indicates that IP(W)L could supply itself at a lower cost than U UW’s revised LAC (as illustrated in Figure 2), we consider that this would not represent an efficient outcome as IP(W)L’s costs would be significantly higher

⁴⁸ In the context of this case, IP(W)L’s self-supply costs could be viewed as a surrogate or proxy for the competitive price.

than the on-going operating and capital maintenance costs that U UW would incur if it continued to supply IP(W)L via the Barepot System.

Figure 2



(D) Our assessment of the reasonable price of supply

4.61 In forming our judgement of the reasonable price of supply in this case, we have had regard to the costs that U UW incurs in supplying IP(W)L via the Barepot System. In doing so, however, and for the reasons set out previously, we also consider it reasonable to distinguish between U UW's total costs of supply (as measured by LAC) and its forward looking costs.

4.62 Our analysis illustrates that, in some circumstances, an economically efficient price can be below that derived from an incumbent's LAC. Such circumstances apply in this case and we consider that a price determined solely on the basis of U UW's LAC could result in an inefficient outcome as it is likely to lead to a situation where IP(W)L chose to self-supply, even though it would be more efficient – based on U UW's forward looking costs – for the existing agreement to remain in place.

4.63 As part of our considerations, we have also had regard to the fact that in the event that IP(W)L terminated its supply agreement and chose to invest in its own supply, U UW would continue to incur ongoing operating and capital maintenance costs to supply the two other customers on the Barepot System but would no longer receive any contribution from IP(W)L towards these costs, noting too that IP(W)L uses around 95% of the supply. Any consequent "shortfall" in revenue would impact on U UW's wider customer base. This is because the Barepot System assets are included in U UW's Regulatory Capital Value (RCV) and U UW will continue to receive a return on these assets under the price review process even if the assets become 'stranded' and are not used

to supply IP(W)L. The RCV is a regulatory tool that provides greater certainty to companies to be able to plan long-term investments and to raise capital at more favourable rates. To date, for assets which have been efficiently included in the RCV but subsequently used below their full capacity, companies have been able to earn a rate of return on those assets. In the context of this case it does not seem reasonable, or appropriate, to Ofwat for other customers generally to pay for a largely unused piece of infrastructure which, given the geographic isolation of the system, they do not benefit from, while at the same time IP(W)L is incentivised to build duplicate infrastructure.

4.64 Alternatively, if we determine a price for the supply which is no higher than IP(W)L's cost of self-supply (i.e. 9.1 p/m³) – thereby requiring UUW to lower its price to the “competitive” level (which, in this case, is significantly higher than the on-going or avoidable costs that it would incur in continuing to provide the supply) – then the risks of this inefficient outcome are substantially diminished. This is because:

- as the price for the supply to IP(W)L will fall significantly, IP(W)L's incentive to develop its own infrastructure will be reduced – thereby avoiding unnecessary and inefficient new investment, which would simply duplicate the Barepot System;
- compared to a situation where IP(W)L chose to self-supply, UUW would recover all of its forward looking costs and a significant proportion of its sunk costs from IP(W)L, the main customer using the specific system; and
- to the extent that UUW experienced a “shortfall” against its LAC costs, this would be recovered from UUW's other wholesale water customers through the current price control mechanism, but those customers would have to make up a far smaller shortfall as compared with the situation in which IP(W)L chose to self-supply⁴⁹.

4.65 Having considered all of these factors, therefore, we have made the determination set out in Appendix 1 which reflects our conclusion that **the price**

⁴⁹ In a non-regulated, competitive environment – and in a situation where both parties have broadly equal bargaining strength – in simple terms, the incumbent supplier could be expected to respond to competitive pressure and reduce its price to the level necessary to retain a key customer - so long as it could recover all of the ongoing or avoidable costs of providing the supply and then seek to recover as much of their common costs and capital costs out of the competitive price. Under the existing regulatory system, UUW is able to recover any shortfall in the costs of the supply through the price control mechanism.

for the supply of non-potable water from U UW to IP(W)L should be 9.1 p/m³ at 2011/12 prices. When re-based to 2006/07 prices to ensure consistency with the 2009 Agreement, this equates to a price of 7.7 p/m³.

4.66 In making this determination we have taken account of the very specific circumstances of this case, in particular: IP(W)L's ability to supply itself; and its track record of making investments in the form of the securing of their own abstraction licence and of the Cloffocks System, and the commissioning of consultants to examine the costs of self-supply⁵⁰. These facts distinguish this determination from other cases in which we have been required to make determinations under section 56 of the Act, where we have been minded to adopt the more usual approach of proposing determinations based on a consideration of the costs of the appointee without having to consider the costs of a self-supply option. Nevertheless, for the reasons set out above we consider that the approach that we have adopted in this case is fully consistent with our legal duties under section 56 and that in reaching our determination of the reasonable price for the supply to IP(W)L, we have had regard to the desirability of U UW recovering all of the expenses of complying with its relevant obligations and securing a reasonable return on its capital (either directly via the customers on the Barepot System or indirectly via the price control mechanism) and have done so in a way which mitigates the risk of an inefficient duplication of assets and an adverse impact on U UW's other customers.

4.67 The process we have applied to ensure that we have fulfilled our duties also serves to:

- Reinforce the need for appointed undertakers to be able to justify the reasonableness of the price they charge customers for the services being supplied;
- Underline the importance of undertakers ensuring that these services are being provided as efficiently as possible; and
- Highlight the need for undertakers to be prepared to respond appropriately to competitive pressure (e.g. market entry) as they would have to do in a non-regulated market.

⁵⁰ As noted in paragraph 3.10, in 2006 IP(W)L also invested in its own water treatment facilities as it was unhappy with the quality of the treated water being supplied by U UW.

(E) Provision for revisiting the price of the supply

4.68 As we set out in our draft determination, the Water Act 2014 provides for Ofwat to issue rules about certain types of charges that water and sewerage undertakers make. It also provides for the Secretary of State and the Welsh Ministers to issue guidance on charges to which Ofwat must have regard when making rules.

4.69 We went on to explain that, although such rules will not directly apply to the determination of charges under section 56 of the Act, our approach to assessing relevant costs and determining reasonable charges for the bulk supply of water generally may be different in the future following the finalisation of ministerial guidance and charging rules. We noted that any inconsistency of approach between current and future determinations could potentially result in harm or unfairness being caused to customers, for example through the cross-subsidies that can be implicit in price controls. We therefore wanted to avoid making long-term determinations that could give rise to such harm or unfairness following the introduction of new guidance and charging rules.

4.70 We also noted that our published framework for resolving pricing disputes involving bulk supplies therefore sets out our policy of seeking to ensure that we can revisit our price determinations in the future if necessary. Depending on the nature of the determination, we said that this could be achieved by either:

- limiting the duration of the agreement; or
- including a ‘reopener’ provision in the agreement that would allow the parties to renegotiate the price, or refer it to Ofwat in the absence of agreement, if, for example, Ofwat’s policy materially changed following the date of the determination.

4.71 In this case, we proposed to include a ‘reopener’ provision in the 2009 agreement to allow the parties to renegotiate the determined price if there is a material change in Ofwat’s charging policy after the date of our determination or, in the absence of agreement, for either or both to refer it to Ofwat for re-determination⁵¹.

⁵¹ We considered, and still consider, that limiting the duration of the agreement would not be as efficient as including a re-opener provision, given the particular circumstances of this case, the fact that the re-opener provision would only be used in particular circumstances which is a more focused

- 4.72 U UW questioned the inclusion of the proposed re-opener, instead arguing that “Given the upcoming publication of new charging guidance early in 2015, following the passing into law of the Water Act 2014, it would seem prudent to defer the determination of this price until after this guidance has been published, to ensure that it is consistent and compliant with that approach.”
- 4.73 In July 2015 DEFRA published a consultation paper on the charging guidance it is intending to issue to Ofwat under section 144ZE of the Act. The consultation closed on 6th August 2015.
- 4.74 The consultation paper is not directly relevant for charges determined under section 56 of the Act or in special agreements falling within section 142(2)(b) of the Act, because the Water Act 2014 does not provide for Ofwat to make rules about such charges. The consultation paper sets out four overarching objectives or principles which will provide the strategic framework to which Ofwat must have regard in developing charging rules for the industry. The Government recognises that, in practice, trade-offs will need to be made between these objectives and that the appropriate balance between them will be context-specific.
- 4.75 Three of the four overarching objectives, of fairness and affordability, environmental protection, and transparency and customer focussed service do not suggest that there is likely to be any inconsistency between the finalised guidance in relation to them and our final determination in this case. The fourth objective is aimed at having stability and predictability in changes to charges faced by customers. However, the consultation paper also recognises that there may be substantive changes in regulatory direction over time⁵² and that in order to facilitate stable charges, Ofwat should seek to be consistent in its general approach to charging with any changes well signalled and subject to appropriate consultation with both the companies and the customers affected. The inclusion of the re-opener would allow an opportunity for the parties (and Ofwat, in the event of a further reference) to ensure that that aim is met. By

approach, and IP(W)L’s ability to terminate the existing agreement within three months should it decide to invest in its own supply infrastructure.

⁵² Ofwat’s “**Consultation on charges scheme rules for 2016-17 and future developments**”, which was published in September 2015, also notes that charging rules “will evolve over time”, they will “evolve to reflect market developments and reflect learning that Ofwat obtains as new information becomes available to assess existing rules”, and the rules proposed in the consultation document were “the beginning of a journey” (see page 5).

contrast, without any such provision, the difficulty of foreseeing and quantifying any potential harm or unfairness to the parties would remain.

4.76 Given the duration of the 2009 agreement, the guidance on charging (from, in this case, DEFRA) may change over the lifetime of UUW's supply of water to IP(W)L and although it impossible to foresee whether there will, in fact, be any changes that necessitate the use of the re-opener, we remain of the view that, on balance, it is better to retain it than to accept the risks of the 2009 agreement leading to harm or unfairness at some point. In taking this decision we have re-considered the terms of the re-opener to confirm that it is drafted to permit a review of the price only in the narrow circumstances for which it is intended, namely a change in our charging policy that is material and relevant. Having carried out this review, we have concluded that the proposed wording set out in the draft determination remains broadly reasonable. This wording therefore has been incorporated in our determination in Appendix 1, with minor variations so that it is in terms which are consistent with the other provisions of the 2009 agreement in which it is to have effect.

(F) Annual indexation of the price

4.77 In addition to its concern about the level of the tariff, IP(W)L also argued that the application of the full RPI to the price year-on-year is “wholly unsatisfactory”. They argued that the only reasonable approach to price inflation is to use a realistic indicator and apply it only to those aspects of the price breakdown that are subject to inflation. In their view, the selection of RPI by UUW does not appear logical and the Consumer Price Index (**CPI**) would provide a more realistic characterisation of consumer behaviour as it excludes mortgage interest and is a more comparable measure of inflation internationally. Hence, they argue, the CPI should be used in this type of price formula and not the RPI.

4.78 IP(W)L argued that as the principle of indexation is intended to compensate the supplier for unavoidable increases in cost throughout the life of the contract, and as the capital repayment element of the price is not subject to inflation, it should not attract any annual indexation. As this element, they argued, represents around half of the total, then “it follows that an appropriate indexation for the contract should be 0.5 x annual CPI”.

4.79 In relation to the most appropriate mechanism to index the price, UUW in their submission to Ofwat, argued that RPI inflation represents the closest match to the company's costs, both operating and capital expenditure, and is also

consistent with Ofwat's assessment of the cost of capital. They also pointed out that as site specific costs have been assessed it makes sense for the base price to be indexed by RPI for the duration of the contract, rather than additionally reflecting "K factors" which take account of movements in average costs throughout U UW. In order to maintain consistency with indexation applied in other parts of U UW's charges, they proposed that prior year-on-year November RPI be the basis of indexation.

4.80 Noting the caveats identified by IP(W)L, in our draft determination we concluded that RPI was an appropriate indexation for the price of non-potable water in the present case. We have historically used RPI to index revenues companies receive to reflect uncertain and uncontrollable input price risks faced by the companies. In the PR14⁵³, RPI indexation is applied to the allowed revenue and RCV for wholesale controls, which reduce companies' exposure to the risk of input price increases (including the costs of index linked debt, to avoid inhibiting choice over financing options). The use of RPI for price indexation in this case aligns the price indexation of non-potable water bulk supply to the controls on revenues relevant to other parts of the U UW's wholesale water business, and we did not consider IP(W)L's argument was sufficiently compelling to deviate from RPI in this case. We have not seen any evidence that the cost pressures on U UW are materially different for the Barepot System relative to the rest of its network to deviate from our common approach in the context of this case.

4.81 IP(W)L chose not to make any further representations on our provisional findings regarding the method of indexation used. Moreover, while a number of other respondents questioned the appropriateness of Ofwat's use of RPI more generally, we did not receive any substantive evidence or arguments that would cause us to depart from our draft determination in this case. For the purpose of this final determination, we therefore remain of the view that RPI is an appropriate means of annual indexation in this case⁵⁴ and this view is given

⁵³ [Setting price controls for 2015-2020 – final methodology and expectations for companies' business plans](#)

⁵⁴ In relation to IP(W)L's suggestion that as the capital repayment element of U UW's price is not subject to inflation it should not attract any annual indexation, we consider that given the magnitude of the impact and complexity of the implementation, and in view of the fact that IP(W)L has not provided any further representations or evidence on this issue, it is proportionate to apply one indexation to the full determined price.

effect in the text of the determination in Appendix 1 by providing that Clause 7.4.1 in the October 2009 agreement continues to apply.

Water Services Regulation Authority
December 2015

A1 Determined Terms and Conditions

Using the numbering of the 2009 agreement, the following terms and conditions fall to Ofwat for determination under section 56 of the Act:

- Clause 7.2.1 which provides that during the term of this agreement, each Company shall pay to U UW on demand the following charges (subject to determination by Ofwat) ..**“14.9 pence per cubic meter for all non-potable water so supplied to that Company commencing 1st April 2006. ...”**
- Clause 7.4.1 which provides that **“the Charges paid by the Company for non-potable water shall be adjusted annually in line with RPI”**

For the reasons set out in this document, we make a final determination that, in relation to IP(W)L, Clause 7.2.1 should be altered to refer to **“7.7 pence per cubic meter for all non-potable water so supplied to that Company commencing 1st April 2006, subject to subsequent variation in accordance with Clause 7.2.5.**

We have decided not to change Clause 7.4.1.

We also determined that, in relation to IP(W)L, the following provision will be added to the 2009 agreement to enable the parties to re-open negotiations in the event of a material change in Ofwat’s charging policy.

“Clause 7.2.5

- (1) ‘Material Change’ means a change in Ofwat’s’s charging policy which Ofwat considers to be material and relevant to a possible change to the charge in clause 7.2.1, designated as such in writing by Ofwat and sent to U UW and IP(W)L for the purposes of this Agreement.**
- (2) In the event of a Material Change, U UW and IP(W)L may renegotiate the charge in clause 7.2.1 of this agreement and, if no agreement on a renegotiated charge is reached within 6 calendar months of the designation of a Material Change, either party may refer the matter to Ofwat for redetermination.**
- (3) A new charge resulting from either the renegotiation or redetermination mentioned above shall take effect from the date on which the Material Change was designated by Ofwat.”**

A2 List of documents and correspondence considered in making this determination

Ofwat guidance

[Bulk supply pricing – a statement of our policy principles](#) (February 2011)

[Negotiating bulk supplies – a framework](#) (August 2013)

[IN 14/04: Ensuring consistency in our approach to resolving pricing disputes involving bulk supplies](#) (January 2014)

[Our framework for resolving pricing disputes involving bulk supplies](#) (January 2014)

Correspondence with Iggesund Paperboard (Workington) Ltd

Table A2.1: Correspondence with IP(W)L

Ref	Date	Type	From	To	Description
1	21/09/10	Letter and attachments	IP(W)L	Ofwat	Request for determination
2	26/01/11	Letter	Ofwat	IP(W)L	Letter confirming scope of section 56 determination and request for further documentation
3	20/04/11	Letter and Annex	Ofwat	IP(W)L	Request for further information
4	10/06/11	Letter and attachments	IP(W)L	Ofwat	Response
5	14/03/12	Letter and Annex	Ofwat	IP(W)L	Request for further information
6	17/04/12	Letter and attachments	IP(W)L	Ofwat	Response
7	10/08/12	Letter and Annex	Ofwat	IP(W)L	Request for further information
8	16/08/12	Letter and attachments	IP(W)L	Ofwat	Response. Copy of feasibility study for Cloffocks system.
9	24/02/15	Email	Ofwat	IP(W)L	Request for further information
10	27/02/15	Email	IP(W)L	Ofwat	Response regarding planned contingency
11	05/03/15	Email	Ofwat	IP(W)L	Request for further information

Ref	Date	Type	From	To	Description
12	09/03/15	Email	IP(W)L	Ofwat	Response regarding Local Authority rates

Correspondence with United Utilities

Table A2.2: Correspondence with U UW

Ref	Date	Type	From	To	Description
1	26/01/11	Letter	Ofwat	U UW	Letter confirming scope of section 56 determination
2	20/04/11	Letter and Annex	Ofwat	U UW	Request for further information
3	27/05/11	Letter and attachments	U UW	Ofwat	Response
4	14/03/12	Letter and Annex	Ofwat	U UW	Request for further information
5	20/04/12	Letter and attachments	U UW	Ofwat	Response
6	10/08/12	Letter and Annex	Ofwat	U UW	Request for further information
7	07/09/12	Letter and attachments	U UW	Ofwat	Response
8	27/02/14	Letter and Annex	Ofwat	U UW	Request for further information
9	06/03/14	Letter and attachments	U UW	Ofwat	Response
10	27/03/13	Email	Ofwat	U UW	Request for further information
11	09/04/14	Email and attachments	U UW	Ofwat	Response
12	14/11/14	Email and attachment	U UW	Ofwat	Response to our draft determination
13	31/07/15	Letter	U UW	Ofwat	Letter following conclusion of negotiations between U UW and IP(W)L
14	21/08/15	Email and attachment	U UW	Ofwat	Response to our draft determination in relation to Welsh Water and Tata Steel, making further points relevant to our determination in this case

A3 Chronology of requests for information

Ofwat received a request for determination from IP(W)L on **21 September, 2010**.

On **11 November, 2010**, we wrote to them to request additional documentation and information to enable us to evaluate the issues raised. This included copies of the agreements signed between the parties and an explanation of the facts that IP(W)L had taken into account in signing the October 2009 agreement. IP(W)L provided copies of these documents in its response of 17 November, 2010.

Following internal review, on **26 January, 2011** we wrote to IP(W)L to inform them that we were satisfied that our determination powers under section 56 of the Water Industry Act 1991 provided the most efficient route to address the issues raised. Generally, before intervening in a dispute using our powers under section 56 of the Act, we expect the parties to have made a demonstrable effort to reach a negotiated resolution. Section 56 is engaged only when there is an absence of agreement and we needed to satisfy ourselves that this was the case. We also wrote to U UW on the same date to inform them that IP(W)L had referred the dispute to us and that we would deal with it as a determination under section 56 of the Act.

On **20 April, 2011** Ofwat sent a RFI to U UW and IP(W)L requesting further information on the determination application. In our covering letter to U UW we also provided them with an opportunity to comment regarding Ofwat's jurisdiction in this case. U UW responded to our RFI on 27 May, 2011 and IP(W)L responded on 10 June, 2011.

On **14 March, 2012** we sent a second RFI to each of U UW and IP(W)L requesting information on the services provided and volumes of water delivered, the costs of operating the Barepot System and the costs of operating the pumping plant acquired by IP(W)L (the Cloffocks system). We also confirmed that we were satisfied that we had jurisdiction under section 56 of the Act to make a determination.

On **10 August, 2012** we wrote to both IP(W)L and U UW asking for clarification of some of the information provided in their responses to the 14 March, 2012 information requests. At the same time we also wrote to the other two customers served by the Barepot System, Eastman Chemicals Ltd and Pentagon Chemical advising them about the determination request and the potential for Ofwat's decision to impact on their supply price.

In **February and March 2014**, we issued further RFIs to U UW seeking clarification and an update of information previously provided.

Ofwat's first information request

We issued RFIs to the parties **on 20 April, 2011** to inform our determination. In our RFI to U UW we requested information on the following.

- The 1983 agreement, the 2006 interim agreement and the 2009 agreement.
- The relevant services provided by U UW under these agreements.
- Details of the assets used to provide relevant services to IP(W)L and other customers on the Barepot system.
- The costs associated with providing the relevant services to IP(W)L and the costs that would be avoided if U UW ceased to supply IP(W)L.
- U UW's view of what it considered the relevant price for the supply of non-potable water services should be in this case.

In addition to the information already provided by IP(W)L as part of its submission to Ofwat to support its request for a determination, we requested further information on the following.

- The 1983 agreement, the 2006 interim agreement and the 2009 agreement.
- The relevant services provided by U UW under these agreements and how these services had changed since IP(W)L constructed its own water treatment plant.
- The relevant costs that IP(W)L believes that U UW had recovered under the various agreements.
- The relevant costs that IP(W)L had incurred in securing its own abstraction licence, the abstraction point and pumping station and details of the expected costs that would be incurred to bring its own plant into use and operate in place of a supply contract with U UW.
- IP(W)L's view of what it considered the relevant price for the supply of non-potable water services should be in this case and a detailed breakdown of all the services that it would expect to be provided by U UW for that price.

U UW provided a response **on 27 May, 2011** in which it provided copies of the various supply agreements and information on the volumes of water billed and the level of charges levied on customers on the Barepot System. In addition, it also provided details of the services provided to customers, the assets used by U UW to provide these services and information on the direct operational costs and capital maintenance expenditure incurred by U UW.

IP(W)L responded on **10 June, 2011**. In their response they confirmed that the application for determination was made on behalf of IP(W)L only. They also confirmed the scope of the relevant services provided by U UW and the way in which these had changed following the construction of their own water treatment plant in

2006. In addition, IP(W)L provided details on its water consumption; an annual summary which UUW provided IP(W)L showing the costs recovered by UUW; the costs incurred by IP(W)L in acquiring the abstraction license and existing infrastructure for the Cloffocks system. IP(W)L also provided a calculation of the estimated costs of operating the Barepot System – based on UUW’s declared costs for operating and maintaining the plant during the year 2005/6 – when it was operating as a full water treatment plant facility – compared with the estimated cost for the plant operating as a pumping station only.

Ofwat’s second information request

On **14 March, 2012** we sent a second RFI to each of UUW and IP(W)L requesting further information on the services provided by UUW under the agreements; the volumes of water delivered to IP(W)L; the costs of operating the Barepot System; and the costs of operating the pumping plant acquired by IP(W)L (the Cloffocks system).

In our covering letters of March 2012, we also confirmed that as neither party had commented on our view of our jurisdiction to act in this matter, we were satisfied that we had jurisdiction under section 56 of the Act to make a determination.

In their response of 17 April, 2012, IP(W)L confirmed that the agreement with UUW covered only the supply of non-potable water and that the entire cost of the service reservoir was included in the non-potable supply. They also provided additional information to confirm the volume of water being delivered to the Mill by UUW.

In this response IP(W)L also set out in more detail the basis for the assumptions they had made in their assessment of the costs of operating the Barepot system and updated estimates for the costs of operating the Clockoffs system.

UUW responded to our RFI on 20 April, 2012. In their response, they confirmed that the price charged under the 2009 agreement had been calculated based on the cost of supply to all three customers on the Barepot system with forecast volumes of non-potable water. They also confirmed that the price did not include potable water or any sewerage services which are all charged at standard tariffs as per the UUW charges schemes.

UUW also provided further information on volumes of water delivered to reconcile with figures reported by IP(W)L.

In relation to queries relating to the cost of supply, U UW provided further information on the relevant capital maintenance costs of the assets used at various stages on the supply chain on the Barepot system; estimates of the Modern Equivalent Asset Value (MEAV) of these assets; the expected physical life of the assets and information on installation and overhaul dates. In addition, U UW also provided a more detailed explanation of operating expenditure associated with each stage of the supply chain and a breakdown of these costs into a number of different categories, including general, operating expenditure, power, chemicals, abstraction charges and employee costs including overheads.

U UW also provided information on the expected impact on U UW asset usage and the impact on both capital and operating expenditure if the supply to only IP(W)L ceased or if the supply to all three customers on the Barepot system ceased.

Finally, as part of this response, U UW provided updated versions of their top-down and bottom-up pricing models, an explanation of how the models work and the data sources used.

Ofwat's third information request

On **10 August, 2012** Ofwat wrote to both IP(W)L and U UW asking for clarification of certain aspects of the information provided in their responses to our 14 March, 2012 requests.

The IP(W)L RFI was primarily focused on seeking clarification of the assumptions made by IP(W)L in relation to the Clockoffs system, the costs involved in bringing it into use and operating and capital costs that IP(W)L is expecting to incur. IP(W)L addressed these issues in their response, dated 16 August, 2012. In addition, IP(W)L also provided a copy of a report and feasibility study prepared by Anglian Water Services Ltd into the costs associated with bringing the Cloffocks system (covering the abstraction and pumping systems) into use. These figures had been used by IP(W)L to inform its position on the most appropriate price for the supply of non-potable water services to be charged in this case.

In our RFI to U UW, Ofwat requested further detail on the assumptions that U UW had made in relation to asset lives, estimates of MEAVs for the assets used to supply customers on the Barepot system and in relation to the capital maintenance and operating costs allocated to these assets. U UW responded on 7 September, 2012. As part of this response, they also set out in more detail how these capital maintenance costs and operating expenditure were treated in their calculation of the relevant price, using both the top-down and bottom-up models.

Ofwat's fourth information request

On **27 February, 2014** we issued a further RFI to U UW seeking clarification and further explanation of the costs they had previously provided as well as the latest consumption figures for the supply of non-potable water for each of the customers on the Barepot system. U UW responded on 6 March, 2014.

Ofwat sent a further email request on **27 March, 2014** querying certain aspects of the planned capital expenditure figures that U UW had provided and seeking confirmation in relation to certain aspects of the infrastructure as part of the Barepot system. In addition, we also requested an update of the revenue and volumetric charges associated with the supply to IP(W)L for the most recent year available. U UW responded on 9 April, 2014.

Ofwat's further information requests

As part of our consideration of issues raised in response to our draft determination, we sent a further information request, via email, to IP(W)L on **24 February, 2015**. This sought clarification of the IP(W)L's view of the operational risk and the adequacy of the contingency provisions contained in its proposed self-supply solution. IP(W)L responded on 27 February, 2015.

Ofwat sent a further email request on **4 March, 2015** in which we queried the impact of the planned installation of the new water supply infrastructure on IP(W)L's local authority rates bill. IP(W)L replied on 9 March, 2015.

A4 Ofwat's response to comments on our draft determination

In addition to the response to our draft determination from UUW, we also received comments from five other stakeholders. This included three incumbent water companies, one new appointee and the Consumer Council for Water (**CCWater**).

Introduction

In the main body of this document we have set out our reasons for the final determination we have made in this case. The responses to our draft determination raised a number of issues that were tangential to the determination we were required to make but which we nevertheless considered. This Appendix sets out our views on those issues and also provides a more expansive response to some of the more important points that were directly relevant to our determination; it is not intended to provide a fully comprehensive answer to every point of detail raised in the responses to the draft determination and, in the interest of brevity, answers which may be relevant to more than one issue are not necessarily repeated in relation to other issues. We have grouped the comments received on our draft determination under a number of different headings and set out our responses under the same headings.

1. Consistency of approach used with our section 56 duties

i. UUW's comments

UUW questioned the approach used in our draft determination and its consistency with the legislative requirements of section 56. In particular, they questioned the use of a framework which, in their view, had been developed for disputes between two appointed water undertakers for the bulk supply of water (under section 40 of the Act) being applied to a pricing dispute involving a supply (here also of bulk water) to a non-domestic retail customer (under section 56 of the Act).

UUW expressed concern that, in their view, we had chosen to apply our general section 2 duty to promote efficiency over and above the express legislative provisions under section 56 of the Act – despite having formally recognised in the draft determination that our section 2 duties do not apply to section 56 determinations. Moreover, they suggested that, if we had sought to apply our section 2 duties (to the extent they are relevant), then we appeared to have

considered these only in part. In their view we had focused on the consumer objective in section 2(2A)(c) and on the duties in sections 2(3)(a) and (b), but did not appear to have assessed how the duties in section 2(b)-(d) apply nor had we sought to compare and assess in the round how all our duties might be best met.

ii. Other comments

In addition to the representations received from U UW a number of other respondents also commented on the approach used in this case. One respondent, CCWater, considered that our draft determination demonstrated that we had followed our statutory duties and agreed that the three tests set out in the framework are the appropriate tests to apply. Similarly, another respondent, a new appointee, welcomed the clarity that our draft determination provided on the application of the published framework for both tariff determinations under section 56 and bulk supply determinations under section 40/40A of the Act.

On the other hand, two water companies also questioned our use of a single framework for disputes under section 40 and section 56 of the Act, noting that these bulk supplies are not the same thing and that the provisions in the Act for reaching a determination (and the considerations we have to apply) are different for the two types of dispute.

iii. Our response

Chapter 2 sets out our relevant statutory duties under section 56 of the Act. In that chapter we also describe how, in making bulk supply price determinations⁵⁵ under the different statutory criteria, we seek to be consistent, insofar as is appropriate in respect of the differing statutory tests, in dealing with common issues that arise. We note that U UW recognises in its response to the draft determination that common issues arise in the exercise of different statutory powers, giving the example of both sections 40 and 56 of the Act requiring Ofwat to have regard to the desirability of the supplying water undertaker recovering the expenses of complying with its respective obligations. We have developed the published framework for the purpose of being as consistent as possible on issues common to the exercise of different powers.

⁵⁵ The definition of “bulk supplies” in the Framework includes supplies under sections 40 or 40A where the parties are both appointed water companies, and supplies under section 56 where one party is an appointed water company and the other party is a large retail user.

We recognise that the different statutory powers and duties mean that it may not be possible or appropriate to use the framework in the same way in each case, but that does not preclude us from assessing whether the framework could be used in informing individual determinations made under different powers and statutory criteria.

In Chapter 4 we explain that in our final determination the published framework has been used to inform our assessment of the most appropriate measure of costs to which we should have regard to the desirability of for the purpose of section 56(5)(b) of the Act. This, in turn, has been used to inform our judgement of what a “reasonable” price should be for U UW’s supply of water to IP(W)L for use at the Mill.

U UW noted that we did not appear to have assessed how the duties in section 2(b)-(d) of the Act apply and had not sought to compare and assess in the round how all our duties might be best met. However, as U UW noted, our section 2 duties do not apply to the making of a determination under section 56. To the extent that the point may have been made in response to the way in which the draft determination explained the statutory powers applicable to a section 56 determination, we believe that this point is addressed by Chapter 2 and section (C) of Chapter 4 of this final determination.

2. Our approach to calculating U UW’s cost of supply

Our draft determination set out the approach that we had used to calculate the costs incurred by U UW in operating and maintaining the Barepot supply infrastructure. This involved a detailed analysis of U UW’s cost model and the engineering assumptions and cost inputs which U UW had used to calculate the contract price with support from PA which undertook a review of the model and its assumptions. As a result of this analysis, we considered it appropriate to continue to use the model as a basis for analysis but to revise a number of the assumptions and inputs contained in U UW’s model.

i. U UW comments

U UW did not comment on any of the specific issues raised by PA as part of their review of U UW’s model (a copy of the PA report was also shared with the parties). However, they did question the general approach that we adopted and, in particular, our use of updated information on the volume of non-potable water consumed and revised WACC to re-calculate the estimated costs. By adopting this approach, U UW felt that we had not taken appropriate account of when the agreement was entered

into, the reasonableness of the estimates that underpinned the contract and the investment made at that time, and the period of time over which the contract applies. UUW argued, therefore, that in reaching a determination in this case, we should consider whether the terms offered by UUW were reasonable at the time of the 2009 agreement, in light of the information available at that time.

UUW noted, for example, that our proposed revisions to the WACC reflected the near term effects of the financial crisis and low interest rate policies of central banks. In UUW's view these parameters were inappropriate for calculating charges for a 20 year agreement that stretches well beyond 2020 and instead, suggested that we should have considered what an appropriate cost of capital would be, on average, for the duration of the 20 year agreement with IP(W)L.

Furthermore, they suggested that our approach could undermine the incentive to enter into long term contracts and have the adverse consequence of encouraging customers to apply for a determination under section 56 in order to benefit from subsequent reductions to the cost of capital or changes in any other price dependent assumption. In UUW's view, the opportunity for customers to dispute terms would be excessive and the adjustments made would be asymmetric unless Ofwat also intervened to increase prices beyond those in a contract if a company's costs increased above the levels anticipated when the contract was agreed, or Ofwat agreed that it would be reasonable for a company to retrospectively vary the price for a specific non-domestic supply contract (under special agreement) in the event that the cost of capital increases. UUW claimed that encouraging such retrospective adjustments (in either direction) would not be in the best interests of the company or the generality of customers, even if, as in this case, one specific customer would stand to gain from this approach.

ii. Other comments

A number of other respondents also commented on the approach used in this case and particularly on the use of an activity-specific rather than company-wide WACC.

While one water company agreed that in this case the cost of capital should be higher than UUW's overall cost of capital to reflect the non-diversifiable risks associated with the supply, the new appointee questioned whether potable supplies are in fact more stable and predictable than non-potable supplies. Similarly, one of the water companies argued that the risks associated with supplies to these large users are indistinguishable from the risks which relate to supplies to the wider customer base. Nevertheless, it did accept that the supply of non-potable water to a

non-household customer via a discrete system may warrant an adjustment to the rate of return as a result of the specific risks associated with this supply.

In addition to comments on the use of an activity-specific rather than a company-wide WACC in this case, two water companies also questioned the use of a revised WACC which relates to the AMP6 period rather than the higher rate of return which prevailed when the agreement was entered into.

One of the water companies made a very similar point to the one made by U UW, that Ofwat's approach offers customers the possibility of a "no lose" option of disputing price, because it appears to operate in such a way that only adjusts the "business as usual" price down rather than up. As a consequence, it would be concerned if numbers of customers felt encouraged to dispute the relevant price in the hope that Ofwat might find in their favour.

iii. Our response

Chapter 2 sets out our duties under section 56 of the Act, and the conditions under which we can intervene in a dispute. We will only intervene in a dispute between a water undertaker and another where we are satisfied that there is no relevant agreement between the parties and the parties themselves are unable to reach a negotiated solution – and only in circumstances where there is no charges scheme covering the supply.

In default of such an agreement, we will make a determination of the disputed terms of the supply **"according to what appears [to us] to be reasonable"**. And having regard to the desirability of the relevant undertaker

- **"recovering the expenses of complying with its obligations under section 55 of the Act; and**
- **securing a reasonable return on its capital"**

As explained in Chapter 4, in reaching our determination in this case we have undertaken a very detailed and extensive investigation and all aspects of U UW's costs have been subjected to scrutiny. During the course of this investigation it became clear that a number of assumptions which U UW had relied on in setting the contract price had changed and no longer provided a reasonable reflection of the actual costs incurred by U UW in providing the service over the relevant contract period. Assumptions about external factors also have changed since 2009, particularly in relation to interest rates which were not then expected to stay for so long at historically low levels with a consequent reduction in the cost of capital.

In view of this, we are satisfied that in forming a judgement in this case it is reasonable to do so on the basis of the most up to date information available and on the current assessment of the reasonable costs of supply for the relevant contract period in this case.

Moreover, in assessing what a reasonable return on capital should be for this same contract period, we have taken account of the analysis completed by Grant Thornton. This analysis considered the appropriate activity-specific cost of capital to reflect the impact of the additional “non-diversifiable” risks incurred by U UW in supplying IP(W)L via the Barepot System and also to ensure consistency in the appraisal of the cost of capital across the sector in the light of recent evidence in the PR14 process.

An overview of the methodology used by Grant Thornton is set out in Appendix 5. In general, however, we note that figure recommended as a result of their analysis is designed to provide a long term view – rather than a snap-shot to reflect specific AMP periods. In this context too it is worth noting that the WACC figure used in this case reflects our best assessment of what a reasonable return on capital for the services is likely to be – taking account of long term trends in debt and equity markets. As the contract between U UW and IP(W)L is long term and over a number of price control periods, we consider it is proportionate to use this long term service-specific return on capital throughout the whole contract period, rather than repeatedly making amendments to, or re-opening, the cost of capital elements of the price determination when each new price control period begins.

With regard to the possibility of customers being encouraged to dispute prices because they face a “no lose” option, we think it unlikely that this will happen because of the nature of the section 56 process. Formally, the process under section 56 is, by its nature symmetric: if undertakers have good grounds for making applications under section 56, Ofwat would have to consider them. Equally, it is perfectly possible for a customer to make an application under section 56, but for the undertaker to then raise robust arguments that lead us to determine that the relevant price should be higher than that sought by the customer. Finally, a customer cannot ask for a determination under section 56 of the Act if there is an existing genuine agreement between the parties (as opposed to, for example, a temporary agreement to provide the parties with time to negotiate).

A. Using the business as usual price as our starting point

In this case, the price being disputed was taken as the starting point for our determination⁵⁶.

i. U UW comments

In its representations to us, U UW did not challenge the use of the price being disputed as the starting point for our determination. Indeed, as a general point, U UW argued that in making a determination under section 56, Ofwat should be mindful that its role is adjudicatory and not purely regulatory – the prices offered by a water company in this context are not price regulated in the framework set out under the Act and in exercising our functions, we should not start with a "blank slate", but instead commence our determination on the basis of the contract that the parties have agreed, and consider how, if necessary, that starting point must be adapted.

ii. Other comments

In contrast, one water company questioned the validity of using a "default" or "incumbent" price from which a case has to be made to depart as, they contend, there are no provisions in section 56 of the Act for such an approach. Furthermore, they suggested that this seemed to offer a "no-lose" option to customers and that the effect of this approach would be that in future it would not be in the interests of both suppliers and recipients of water to agree pro tem supply arrangements to provide

⁵⁶ In our published framework we explain that in many instances, the price being disputed or "business as usual" price will have been set on the basis of a top-down approach using average accounting costs (AAC). This approach generally provides a practical and proportionate means of reflecting the cost of provision, and is consistent with what has been, to date, the mode of cost assessment in the water sector. The framework recognises, however, that there may be circumstances for the "business as usual" price not to be based an AAC approach. In this case, the "business as usual" price was based on a LAC approach.

continuity of supply whilst a dispute is being sorted out, without feeling that any temporary arrangements would prejudice the outcome of our determination.

Another respondent also questioned this aspect of our approach and argued that it would be preferable for Ofwat to start from first principles using the legislation as a guide; it said that it was not clear that starting with what is seen to be a business as usual approach and applying certain tests was necessarily appropriate.

iii. Our response

We consider that using the company's offered price being disputed (whether "default" or not) is appropriate as a starting point and is fully consistent with our duties under section 56, not least because, by definition, we may decide to move away from any starting point (as we did in this case).

As explained in Chapter 4, we have looked in depth at the relevant costs that underlie the price being disputed and in this case – as in all cases – we will require evidence that the price being disputed is based on robust information on the relevant costs. Separately, we have then considered whether this approach would, in of itself, cause material adverse effects, and as part of considering that issue, we examine issues related to the geographic nature of supply, any competition concerns, and any efficiency concerns. We note that, in applying the "business as usual" approach described in our Framework, we have, as U UW advocated, not started with a "blank slate" but commenced our assessment of the relevant costs on the basis of the contract that the parties had agreed.

B. The geographic nature of supply

In this case, the disputed price had been calculated by U UW on a bottom-up basis in order to reflect the specific costs of providing the supply using the Barepot System. This approach was not disputed by IP(W)L and our subsequent assessment of the geographic nature of the supply also confirmed that the LAC approach used by U UW to estimate the tariff in this case was appropriate as it reflected more closely the relevant costs of water provision to IP(W)L.

i. Other comments

While neither party disputed this finding, one water company made a general observation about the application of the geographic test, noting that if there is a case

for a system-specific tariff for the Barepot System then there must be just as strong a case for a system-specific tariff for any other “discrete” supply system, however large. They also questioned the consistency of this approach with the use of charges based on regional averages and expressed the view that “regional average for all is a consistent position; system-specific prices for all is also valid but a system-specific for some and regional average for others is not”.

ii. Our response

In view of the specific circumstances of this case, in particular the discrete nature of the Barepot System, and also having regard to the relevant statutory tests contained in section 56, we are satisfied that the LAC approach used by U UW (rather than a top-down AAC approach) captures the relevant costs of supply in this case, as a starting point for this determination. In other cases the AAC approach may be the most appropriate way to capture the relevant costs of supply for pricing purposes, and as indicated in our framework it is reasonable to apply an AAC approach in such cases, with the selective use of a LAC approach in other cases where indicated by the nature of the supply.

In response to one water company’s general observation, we simply note that applying either only an averaged or only a de-averaged approach to all prices in all cases would lead to anomalous outcomes in some of them⁵⁷.

3. Determining a price which is lower than U UW’s LAC

As explained above and in Chapter 4, in reaching our draft determination we set out our provisional finding that, if charges were to be based on U UW’s costs (as measured by LAC), we also needed to consider whether there were any geographical, efficiency or competition issues that would impact on our assessment of what a reasonable charge should be in this case. While our analysis supported the bottom-up approach used by U UW to estimate LAC and did not identify any

⁵⁷ We would also note that the final determination in this case reflects its specific circumstances, including the discrete nature of the system and the availability of an alternative supply at a particular costs; it does not take the water sector as a whole in the direction of general regional de-averaging, and should not be taken as doing so.

competition concerns as a result of this approach, it did highlight an efficiency concern from reflecting LAC in the determined price.

This concern arose because of the specific circumstances of this case and the fact that IP(W)L has the option to terminate the 2009 agreement and develop its own supply infrastructure to by-pass U UW's existing infrastructure. Should IP(W)L choose to exercise this option because it considers that it can supply its needs more cheaply than U UW, U UW would no longer receive revenue from IP(W)L but it would continue to incur on-going operational and capital maintenance costs due to its obligations to supply the other two customers on the Barepot System.

To inform our understanding of the issues involved the cost assumptions underpinning IP(W)L's self-supply model were also subjected to detailed scrutiny. As a result a number of these assumptions were revised to reflect updated information on consumption and costs or alternative approaches recommended by our expert consultants, PA. These revised cost estimates were then compared with U UW's revised costs using our assumptions. In doing so, however, we also highlighted the need to distinguish between each party's total costs of supply and their forward looking costs of supply. In our draft determination we noted that this distinction was important as it recognises the fact that U UW has already incurred the capital costs of investing in the Barepot System, and a significant proportion of these are effectively sunk (would not be incurred again for capital maintenance in the life of the contract). As a result, the on-going or avoidable forward looking costs that U UW would incur in supplying IP(W)L for the contract period consist of the costs of operating and maintaining the Barepot infrastructure. In contrast, IP(W)L's own forward looking costs would include not only the costs of operating and maintaining its own Cloffocks System but also the significant capital expenditure required to develop this alternative infrastructure.

In our draft determination, therefore, we concluded that, while IP(W)L's total costs of supply would be lower than U UW's total cost of supply, its forward looking costs would be significantly higher than U UW's forward looking costs. We explained that in our view, it would be more efficient for the party with the lowest forward looking costs, in this case U UW, to provide the supply. In reaching this view, we also had regard to the fact that, if U UW were only supplying the other two customers on the Barepot System, it would need to recover all the other costs previously recovered from IP(W)L from its wider customer base generally.

In forming a judgement on what the reasonable price of supply should be in this case, we therefore had regard not only to U UW's total costs (as measured by its LAC) but also to U UW's and IP(W)L's forward looking costs. On the basis of our analysis, we provisionally concluded that the price for the supply of non-potable

water from UUW to IP(W)L should be set at a level which was no higher than IP(W)L's forward looking costs.

While this price was set at a level which was slightly below UUW's total cost of supply, we noted that it would enable UUW to cover all of the forward looking costs that it would incur in continuing to supply IP(W)L via the Barepot System and would also ensure that UUW received a significant contribution towards its sunk costs relative to a situation where IP(W)L chose to self-supply.

In response to the consultation on our draft determination, we received a number of comments and queries about the consistency of this approach with other legislative or regulatory provisions. These comments and Ofwat's response to them are set out below.

a) Consistency with competition law and compliance

i. UUW comments

In its representations to us UUW queried whether, in directing UUW to set a price which is lower than its own costs, we had satisfied ourselves, and re-verified, that our determination is consistent with competition law and did not have any adverse effect on competition. UUW also noted that there is no reference to competition law in the section of the draft determination setting out the applicable legal framework and also questioned whether we had given due consideration to guidance issued by the Office of Fair Trading (and adopted by the Competition and Markets Authority) on "Government in Markets".

In particular, UUW questioned whether we had considered the potential market distortions that might arise under competition law from too low a price which does not allow the costs of supply to be fully met, or in directing the company to price below its own costs. UUW also referred to the possibility of the alternative supply being from a competitor and to the possibility of discrimination between customers who can self-supply and those who cannot.

UUW also argued that for Ofwat to base its determination on an assessment of a customer's costs was inconsistent with the approach taken to the assessment of

costs by the Court of Justice of the European Union in *Deutsche Telekom AG v European Commission*.⁵⁸

ii. Our response

Chapter 2 summarises the relevant legal and policy framework which we have applied in this case. Our determination is a decision under section 56 of the Act, not a decision made under the Competition Act 1998, and whilst competition issues may be relevant, in particular to the reasonableness of our decision under section 56, they are not an express part of the statutory framework we are applying. We therefore think that it is appropriate to deal with competition issues in Chapter 4 and this Appendix and not in Chapter 2.

For the reasons set out in Chapter 4 we consider that, given the specific circumstances of this case, it is reasonable – for efficiency reasons – to determine a price which is no higher than IP(W)L’s forward looking costs. Whilst we recognise that this price is lower than U UW’s total costs as measured by LAC, it is also clear that it is significantly higher than U UW’s forward-looking (or avoidable) costs and enables U UW to achieve a significant contribution to its sunk costs. We are not in a position to carry out the sort of detailed analyses that we would undertake if applying the Competition Act 1998, not least because the *ex post* information required for such an assessment does not exist. Nevertheless, it is clear from our assessment of U UW’s costs that, by determining a price which is higher than U UW’s avoidable cost, we are not requiring it to set a price that could be considered to be predatory or exclusionary. We have considered the CMA’s “Government in Markets” guidance, and do not consider that our decision will distort competition in the market.

It is correct that the two other customers being supplied by the Barepot System need not be offered the same price by U UW as we have determined it should apply in IP(W)L’s case. However, we do not regard that difference as amounting to undue discrimination. The fact that IP(W)L has available to it a cheaper alternative means of supply means that U UW would not be applying dissimilar conditions to equivalent transactions so as to give rise to competitive disadvantage. For the reasons set out in Chapter 4, it would be unfair to the generality of U UW’s commercial customers not to make that price available to IP(W)L.

⁵⁸ Case C-280/08 P.

With regard to the Deutsche Telekom case, U UW's explanation of its concern referred mainly to the practicality for a company of setting its prices by reference to other parties' costs and prices and to the possible consequences of this approach. As explained in Chapter 4, and elsewhere in this Appendix, Ofwat considered IP(W)L's costs in reaching its determination because of the specific facts of this case and expects that it will not need to consider user costs in other section 56 cases unless similar specific facts apply. There were no practical difficulties for Ofwat, as opposed to a third party, taking this approach in the particular circumstances of this case.

b) Compliance Issues

i. U UW comments

In its representations on our draft determination U UW questioned whether our approach implied that companies should set charges with reference to customers' costs, rather than their own costs, and noted that if this was the case, it would present formidable practical compliance challenges for appointed companies.

U UW also noted that, in order to avoid customer disputes, they would need to apply price reductions and discounts in cases where a customer may have the option of taking supplies from a competitor to U UW or adopting a self-supply option (at least insofar as is possible without pricing below avoidable cost). This, they argued, raised practical problems for water companies who wish, quite reasonably, to avoid customer disputes and to avoid regulatory interventions in their terms of supply.

Moreover, U UW argued that it would be difficult for water companies to set charges for each customer by reference to the costs of supply accessible to a customer if it turned to a competitor or developed its own self-supply option. The information needed for a water company to set these charges would not be readily available, especially in circumstances - such as this case - where the self-supply option would involve new and untested supply arrangements, rather than alternative supplies from an established competitor with an established pricing policy.

In view of the fact that the hypothetical costs associated with a hypothetical supply will be difficult to evidence or ascertain, and since water companies will not have the information they need to set charges that are consistent with the approach outlined in the draft determination, U UW argued that the practical effect would be to transfer greater responsibility for setting charges from companies to Ofwat. This position would be inconsistent with Ofwat's overall approach to regulation.

On 21 August 2015 U UW submitted a response to our consultation on a draft determination under section 56 in relation to the supply of water by Welsh Water to Tata Steel. U UW suggested that the starting point for making a section 56 determination in that case should be consideration of an appointee's charging scheme to decide whether it is unduly discriminatory. U UW also sought clarity on whether an approach which took the water sector in the direction of regional de-averaging would be in accordance with Defra's recent consultation on charging guidance to Ofwat.

ii. Our response

In Chapter 2 we set out the legal thresholds that must be met for us to intervene in a dispute under section 56 of the Act and in Chapter 4, we explained how the approach adopted in this case aligns with our relevant statutory duties and tests. We also explained the extent of the evidence that we have obtained to enable us to reach a judgement in this case.

We are confident that, because of the specific circumstances of this case, in particular IP(W)L's demonstration of its willingness to invest in its own supply infrastructure and the availability of an alternative supply option which it could develop, it is unlikely to result in any significant increase in the number of disputes referred to us under section 56⁵⁹.

These facts distinguish this determination from other cases in which we have considered making determinations under section 56 of the Act⁶⁰, where we have considered the more usual approach of having any determinations based on a consideration of the costs of the appointee.

⁵⁹ We do not, for example, anticipate an increase in determination requests from users seeking to overturn agreements genuinely entered into, and indeed Ofwat would look very carefully at any attempt to engage section 56 for the purposes of "gaming" the system.

⁶⁰ We have, for example, considered the general consistency between our final determination in this case and our draft determination in the Welsh Water/Tata Steel case, where we have provisionally determined a price which is based solely on a consideration of the costs of Welsh Water. There are no self-supply issues in the Welsh Water/Tata Steel case.

Nevertheless, for the reasons set out in Chapter 4 we consider that the approach that we have adopted in this case is fully consistent with our legal duties under section 56 and that in reaching our determination of the reasonable price for the supply to IP(W)L, we have had regard to the desirability of U UW recovering all of the expenses of complying with its relevant obligations and securing a reasonable return on its capital (either directly via the customers on the Barepot System or indirectly via the price control mechanism) and have done so in a way which mitigates the risk of an inefficient duplication of assets and an adverse impact on U UW's other customers.

The process we have applied to ensure that we have fulfilled our duties also serves to:

- reinforce the need for appointed undertakers to be able to justify the reasonableness of the price they charge customers for the services being supplied;
- underline the importance of undertakers ensuring that these services are being provided as efficiently as possible; and
- highlight the need for undertakers to be prepared to respond appropriately to competitive pressure (e.g. market entry) as they would have to do in a non-regulated market

c) Consistency of the approach with Licence Condition E

i. Comments

Two water companies queried the consistency of the approach used in this case and Licence Condition E. They suggested, for example, that charges fixed or agreed in relation to the supply of water to customers fall within the scope of Licence Condition E, whereas bulk supply charges do not. These respondents argued that as Licence Condition E operates so as to require undertakers to be able to justify each of their charges in relation to all of the others, thus prohibiting companies from looking at individual charges in isolation, we should have regard to an “equivalence matrix” when carrying out a section 56 determination, i.e. considering how well a determined price “fits” with an undertaker’s other charges. In their view the use of the framework’s three-stage test rules this out.

ii. Our response

Licence Condition E relates to prohibitions on undue discrimination and undue preference, but expressly provides that the condition does not apply to any such

terms and conditions as are determined by us under section 56.⁶¹ There can, therefore, be no complaint against U UW for breach of that condition by virtue of the fact that it applies the price determined under section 56 for the supply of water to IP(W)L.

As set out above at (a) and in Chapter 4, we do not consider that the setting of the determined price is unduly discriminatory and could give rise to a contravention of Condition E: it results from an analysis of the highly unusual circumstances associated with the self-contained Barepot System and IP(W)L's credible alternative of self-supply. We see no realistic possibility of applying a meaningful "equivalence matrix", nor any material value in seeking to do so. Nor does our determination represent a new policy to the effect that any customer with an alternative source of supply is entitled to a discount: our determination in the present case is particular to its unusual facts.

d) Cross-subsidisation by other customers

i. Comments

One water company questioned whether it was appropriate that as a result of the approach taken in this case the determined price would not fully cover the supplier's cost of supply, including a reasonable return on capital, and therefore an element of that supplier's earlier investment would be "stranded" by the determination. They noted that, as under Ofwat's general price review methodology, that element would, by default, find its way in to the supplier's RCV and would be remunerated by the generality of other customers. This would mean that other customers would apparently be cross-subsidising the single customer in this case.

ii. Our response

As set out in Chapter 4, in forming our judgement of the reasonable price of supply in this case, we have had regard to the costs that U UW incurs in supplying IP(W)L via the Barepot System. In doing so, however, we also consider it reasonable to

⁶¹ Sub-paragraph 6(4)(a) of U UW's Licence Condition E notes that, "This Condition shall not apply [...] to any such terms and conditions as are determined by [Ofwat] [...] under section 56 [...] or so require the Appointee to have regard to any such terms, conditions or provisions".

distinguish between U UW's total costs of supply (as measured by LAC) and its forward looking costs.

As a result of our analysis, we noted that a price determined solely on the basis of U UW's LAC could lead to a situation where IP(W)L might choose to self-supply leading to less efficient expenditure of costs. We also had regard to the fact that, in the event that IP(W)L terminated its supply agreement, U UW would continue to incur ongoing operating and capital maintenance costs to supply the two other customers on the Barepot System but would no longer receive any contribution from IP(W)L towards these costs. Any "shortfall" in revenue would impact on U UW's wider customer base because, as the respondent noted, the Barepot System assets would continue to be included in U UW's RCV. U UW would, therefore, continue to receive a return on these assets from other customers under the price review process even if the assets become 'stranded' and were not used to supply IP(W)L.

As explained in Chapter 4, it does not seem reasonable or appropriate to Ofwat for other customers generally to pay for a largely unused piece of infrastructure which, given the geographic isolation of the system, they do not benefit from, while at the same time IP(W)L felt compelled to build duplicate infrastructure to save money in the face of a higher price.

We noted that if we determine a price for the supply which is no higher than IP(W)L's cost of self-supply then the risks of this inefficient outcome occurring are reduced. In addition, compared to a situation where IP(W)L chose to self-supply, U UW would recover from IP(W)L all of its forward looking costs and a significant proportion of its sunk costs. To the extent that U UW experienced a shortfall against its LAC costs, the existing form of price control mechanism would allow it to be recovered from U UW's other customers, but those customers would have to make up a far smaller shortfall as compared with the situation in which IP(W)L chose to self-supply.

In carrying out our assessment of the facts of this case we have taken account of its specific circumstances, and have also had regard to the desirability of U UW recovering all of the expenses of complying with its relevant obligations and securing a reasonable return on its capital – either directly via the customers on the Barepot System or indirectly via the price control mechanism.

For the reasons set out in Chapter 4 we consider that the approach that we have proposed meets our duties under, and is consistent with, section 56, and does so in a way which also minimises any adverse effects on customers and takes account of wider efficiency issues.

4. Ofwat's process and the need for further consultation

i. Comments

UUW argued, at several points in its response to our draft determination and in subsequent communications, that Ofwat should provide a further draft determination for consultation. UUW referred to the nature and number of queries which it raised on the draft determination and to the precedent likely to be set, particularly in light of retail market opening and future reforms of upstream services. UUW suggested that the length of time for consulting should not be significantly less than the period of time that the parties would have available to contemplate launching a possible judicial review process (three months). UUW also said that it would seem prudent to defer the determination of this price until after relevant guidance under the Water Act 2014 has been published.

ii. Our response

We have decided not to provide a further period of consultation before making our final determination. Our final determination, the reasoning for it, and the relevant factual circumstances have not fundamentally changed since the draft determination on which comments were provided by UUW. UUW has taken two opportunities to submit further representations to us, but on neither occasion did it introduce new arguments.

We therefore see no need to conduct a further period of consultation, which would prolong the time for which IP(W)L has to pay a higher price than is provided by our final determination.

A5 The cost of capital for price determination cases

The cost of capital is a key element in developing the relevant price in the context of this case. In general, the provision of water services is relatively capital intensive and UUW has considerable assets in place to serve IP(W)L.

For the PR14 price control we set a water and wastewater wholesale cost of capital (which is excluding the retail part of water companies' returns) that was based on an appointee cost of capital adjusted for the removal of the retail margin. We consider the appointee Weighted Average Cost of Capital (WACC) to be a reasonable starting point as the basis of a cost of capital to apply in a price determination case because it:

- represents our best forward looking view of the cost of capital applicable to appointed companies such as UUW; and
- is based on a robust methodology that has been subject to significant scrutiny from industry's stakeholders during the PR14 price control review process.

We asked Grant Thornton to assess the appropriate cost of capital to apply in this and similar cases involving supplies to large users. It used the cost of capital assessment in our January 2014 "Risk and Reward Guidance" as its starting point. It concluded that a project specific cost of capital, which is higher than the company-wide cost of capital used for price controls, should be applied in this and other cases.

At final determinations for PR14 in December 2014 we revised our view of the relevant cost of capital for the purpose of the price control. Because of this change, we asked Grant Thornton to consider whether it should revise its view of the cost of capital for this and other cases. Grant Thornton considered that the additional information used to determine the cost of capital for final determination did warrant revising its view of the relevant cost of capital for supplies to (very) large users.

We have reviewed Grant Thornton's advice and evaluated whether to apply the cost of capital it has proposed, or to use some other measure. In performing our evaluation we have sought to address two questions:

- Does the proposed cost of capital represent a long term view of a reasonable rate of return?
- Should a project specific or company-wide cost of capital apply?

We deal with each of these in turn below and then set out how we apply Grant Thornton's cost of capital in this case.

A long term WACC approach for price determination cases

Price determinations are not linked to price control periods and the prices are not set for any particular period, but rather are intended to be applied over the length of the agreement. Consequently we consider that the view of all costs, including the cost of capital, used for the purpose of a determination should be our best view of long-term costs.

This raises the question of whether a cost of capital set for the purpose of a price control which applies for only five years should be used in the context of a price determination which we consider should endure.

Consequently, given that price determinations made by us pursuant to the Act are expected to extend beyond price control periods, we consider that the cost of capital applied in these and other determinations should reflect a reasonably long term view of an efficient rate of return. However, we recognize that taking a long term view is inherently less precise as there is greater uncertainty about future economic conditions in the longer term. Nevertheless, we think that this is a reasonable approach to ensure that the price we determine results in a stable long term agreement between the parties.

Given that Grant Thornton's preferred approach is to start its analysis based on the PR14 notional company-wide cost of capital, a reasonable first step for this determination would be to consider whether this figure is also a reasonable efficient long term estimate for an appointed company.

We assessed whether, based on the evidence currently available, the PR14 company-wide cost of capital⁶² is also a reasonable estimate of the long term cost of capital appointed companies will face over a 15 year horizon, rather than simply reflecting the costs companies will face over the 2015-2020 price control period. For that we have analysed separately the individual building block components of the final PR14 cost of capital and assessed whether they fall within a reasonable expected long term range.

⁶²See Final price determination notice: policy chapter A7 – risk and reward.

Cost of equity

The cost of equity represents the required rate of return to investor equity holders in an appointed company. The key methodology used to estimate the cost of equity in the final PR14 price control determinations is the Capital Asset Pricing Model (**CAPM**). This model provides an estimate of the efficient additional risk premium required by investors in equity of an efficient appointed company in relation to the rate of return required if such an investment was structured using risk-free assets (for example Government bonds). The additional risk premium only compensates equity holders for the greater “non-diversifiable” risk⁶³ from investing in the equity of an appointed company relative to risk-free assets.

Based on this framework, the key components of the cost of equity are the:

- **Risk free rate:** This is a generic economy-wide parameter and reflects the required return to an investment with no risk of a financial loss. This return is generally benchmarked against the interest on Government bonds which have very low risk of default.
- **Total market return (TMR):** This is a generic economy-wide parameter and reflects the average return required by the equity market to compensate for the average “non-diversifiable” risk it bears.
- **Asset beta:** This is a company-specific parameter. In this case, it measures how the “non-diversifiable” risks from investing in equity of an efficient appointed notional company compares to the average “non-diversifiable” risk borne by the equity market as a whole, as measured by the Equity Market Risk Premium (“**EMRP**”) parameter. This value is then normalized to account for the impact of the assumed financial leverage for the notional company. The un-normalized parameter is generally referred as ‘equity beta’.

Table 1 below sets out the point estimates of the key components of the cost of equity, a short description of the methodology used in our final PR14 price control

⁶³Returns on capital invested in an asset, for example equity shares, are affected by “diversifiable” and “non-diversifiable” risk. “Diversifiable” risk can be eliminated by holding a portfolio of assets so that the “upside” risks on some assets compensate for the “downside risks” on other assets. “Non-diversifiable” risk generally results from changes in general macroeconomic conditions that affect the returns on all assets in the same direction. Hence, “non-diversifiable” risk cannot be diversified away, and therefore, investors require a risk premium to compensate them for their exposure to risk which they cannot manage by diversification.

determinations to derive these estimates, and our assessment of whether the resulting figure is also a reasonable long term estimate:

Table 1: December 2014 Final Determination point estimates and applied methodology for the cost of equity components⁶⁴

Cost of equity component	Point estimate⁶⁵	Dec 2014 Final Determination Methodology	Reasonable long term estimate
Real risk free rate	1.25%	Adjust current yields on index-linked Government gilts for increases in forward looking expectations. Cross-check with ten-year historical averages of index-linked gilt yields.	Yes Our current internal analysis of the Bank of England's projections over the next 15 years on the yields of 10 year Government gilts shows that a range of 1.4% to 0.6% ⁶⁶ (in real terms ⁶⁷) is a reasonable range given recent market expectations. Therefore, the final PR14 point estimate falls within this reasonable range.
Total market return	6.75%	Estimate derived using both long term historical measures of equity returns and forward looking approaches; and Other academic evidence.	Yes The methodology attempts to capture a long term view of the equity market risk premium.
Asset beta	0.30	Adjust historical asset beta averages (calculated over more than 10 years' worth of data) for current evidence in other utility sectors and revealed strength of water companies financial performance during the recent economic recession.	Yes The final PR14 asset beta point estimate lies within reasonable historical ranges observed for the industry

⁶⁴ For further details on the final PR14 methodology, please refer to the relevant document.

⁶⁵ Dec 2014 Final determination.

⁶⁶Based on our analysis of the Bank of England's forward 10 year gilt yield projections at 31st October 2014 we estimate a long term cost of 10 year Government gilts of 3.4%. This is the average cost of projected yields of 10 year Government gilts over a 15 year period. The same analysis but considering the Bank of England's projections at 31st December 2013 provides a long term cost of 10 year Government gilts of 4.2%. If we use a 2.8% long term RPI estimate, this provides a range of 1.4% to 0.6% in real terms.

⁶⁷ To adjust for inflation we use a long term RPI estimate of 2.8%. See [Final price determination notice: policy chapter A7 – risk and reward](#).

Cost of equity component	Point estimate ⁶⁵	Dec 2014 Final Determination Methodology	Reasonable long term estimate
Gearing ⁶⁸		The notional company capital structure assumes 62.5% gearing level which is just above the current industry average 61.1%. The notional value is used to calculate an equity beta from an asset beta.	Yes We expect financial structures to be reasonable stable under the considered longer term horizon.

Overall, our assessment shows that the final PR14 cost of equity point estimate components can also be regarded as reasonable long term estimates.

Cost of debt

The final PR14 cost of debt represents debt provider's required return to finance a notional appointed company. Table 2 below sets out the key components of the final PR14 cost of debt point estimates which are reflective of the cost of debt relevant to the PR14 price control period only:

Table 2: December 2014 Final Determination point estimates for the cost of debt components

Cost of debt component	Point estimates (Dec 2014 Final determination)
Embedded debt proportion	75%
New debt proportion	25%
Cost of embedded debt	2.65%
Cost of new debt	2.00%
Weighted average	2.49%
Issuance costs	0.10%
Overall cost of debt	2.59%

⁶⁸ Gearing is a key element of the WACC as it determines the relative weights to be given to the cost of equity and the cost of debt in the WACC. However, it is also a crucial element to determine the cost of equity itself so we assess it in this section.

We have undertaken our own internal analysis to understand whether the 2.59% cost of debt point estimate is also a reasonable long term one.

Firstly, we have considered reducing the proportion of embedded to new debt to reflect the fact that over the longer term, the proportion of new debt relative to total debt will be larger as greater proportion of debt will be refinanced over a longer period. In particular, we consider that a 50:50 split is representative of new debt requirements over a 15 year period.

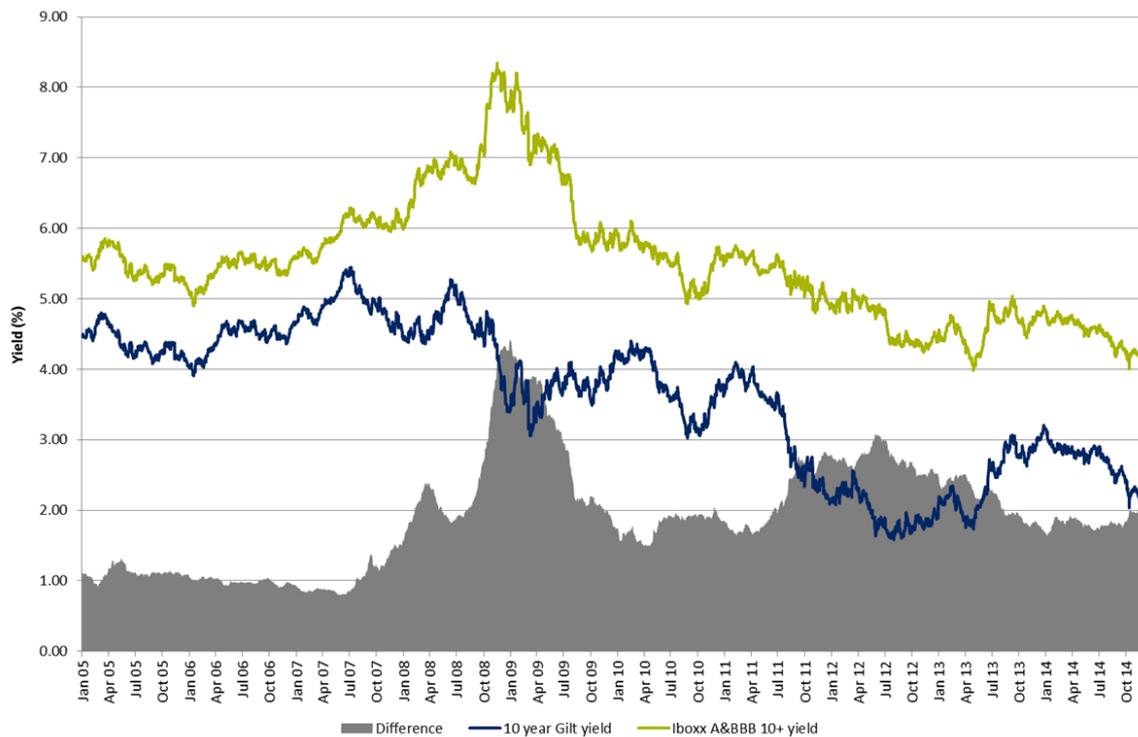
Secondly, we have also looked at producing a longer-term view for the cost of new debt. The starting point is to work out a long-term risk free rate level based on future expectations on the cost of Government borrowing and add a risk premium that would capture a long-term expected spread between the cost of Government bonds and corporate bonds. We have assessed the expected risk premiums by looking at historical spreads between the yields on 10 year Government bonds and benchmarked corporate bond indices.

Based on our analysis of the Bank of England's forward 10 year gilt yield projections at the 31st of October 2014, we estimate a long term cost of 10 year Government gilts of 3.4%. This is the average cost of projected yields of 10 year Government gilts over three consecutive price control periods. We use this figure as the starting point to calculate a long-term cost of new debt.

The graph below sets out the historical spread between the cost of 10 year Government gilts and the cost of corporate bonds - measured with corporate bond indices⁶⁹ - and will be the basis for informing a long-term view of the risk premium required to buy corporate bonds:

Figure 1: Historic spreads between the cost of 10 year corporate bonds and the cost of 10 year gilts

⁶⁹Specifically we looked at iBoxx A/BBB corporate bond indices.



Source: Ofwat's calculations.

The historical spreads need to be interpreted with caution to inform a long term view. Pre-crisis spreads levels seem abnormally low (1%). As commented by members of the Monetary Policy Committee, this seems to relate to a period where lenders were significantly underestimating the risks in the corporate bond market. Therefore, we would not expect long term spreads to go back to observed pre-crisis levels.

Other historical data seems to be affected by periods of abnormal monetary policy with a strong emphasis on quantitative easing (for example between October 2011 and July 2012) resulting in spreads in excess of 2.5%. Over the longer term, as the economy returns to normal conditions and current monetary policy unwinds, we would expect spreads to fall below 2.5% and potentially even further than 2% as the most recent historic data shows. With this analysis in mind, we think that a reasonable range for a long term spread lies between:

- **Lower bound 1.50%:** Based on historical evidence and the above analysis we think that spreads below 1.50% would be abnormally low for a long term view, and
- **Higher upper bound 1.85%:** We think that the most recent data historic spreads are indicating a recovery of the economy to more normal conditions. Therefore, over the longer term, we expect that a reasonable long term spread might lie below the most recent historic spreads.

Therefore, we set the upper bound to the average spread of the last 12 month period for which we have data for.

Table 3 below summarizes our long-term overall cost of debt and compares it to the final PR14 point estimates:

Table 3: Overall cost of debt comparison between Dec 2014 Final Determination point estimates and reasonable long-term view range

Overall cost of debt	Point estimates ⁷⁰	Lower bound long term spread	Higher bound long term spread
Embedded debt proportion	75%	50%	50%
New debt proportion	25%	50%	50%
Cost of embedded debt	2.65%	2.65%	2.65%
Cost of new debt	2.00%	Long term gilts: 3.40%	Long term gilts: 3.40%
		Spread: 1.50%	Spread: 1.85%
		Inflation: 2.80%	Inflation: 2.80%
		Cost new debt: 2.10%	Cost new debt: 2.45%
Weighted average	2.49%	2.38%	2.55%
Issuance costs	0.10%	0.10%	0.10%
Overall cost of debt	2.59%	2.48%	2.65%

The midpoint of our long term view range for the overall cost of debt is approximately 2.57% which is broadly comparable to PR14's final determination point estimate.

Overall, our analysis shows that even though the PR14 notional company-wide cost of capital produced for our final PR14 price control determinations is specific to the price control period, it still falls within a reasonable long term view range. As result, **we do not propose to deviate from the final PR14 cost of capital figure as the**

⁷⁰ Dec 2014 Final determination.

starting point of our analysis to derive a suitable forward looking cost of capital for this price determination.

A project-specific WACC

As part of our work on price determinations, we commissioned Grant Thornton in early 2014 to produce an independent report examining whether it would be appropriate to apply a different cost of capital to a notional company-wide cost of capital in the cases involving supplies to large users⁷¹.

Grant Thornton's August 2014 final report indicates that there are sufficient differences in terms of "non-diversifiable" risks between: (i) a notional company that only supplies non-potable water to large users; and (ii) a notional company that supplied potable and non-potable water to all types of customers, to justify departing from a notional company-wide cost of capital in the present case.

In its report, Grant Thornton notes that demand from large users is generally more variable in response to fluctuations in general economic conditions when compared to the demand from customers more broadly. In an industry characterised by the presence of substantial fixed costs, greater volatility of demand reduces suppliers' certainty in relation to cost recovery. Grant Thornton considers that this fact materially increases the cost of capital of a notional company which only supplies large users when compared to the cost of capital for a notional company supplying potable and non-potable water to all types of customers.

Accordingly, Grant Thornton calculate a forward looking notional "activity-specific" cost of capital for the activity of supplying non-potable water to large industrial users only. In terms of methodology, the starting point of their assessment is our January 2014 "Risk and Reward Guidance"⁷² notional company-wide cost of capital (3.85% vanilla WACC) developed at that time for the PR14 price control. At the time, Grant Thornton considered this figure to be the best estimate for the cost of capital for the industry and use it as the basis to calculate a forward looking notional "activity-specific"

⁷¹ Cost of capital for price determination cases: A report for Ofwat. Grant Thornton. August 2014.

⁷² See, [Setting price controls for 2015-20: \(1\) risk and reward guidance. OFWAT, January 2014.](#) And (2) [Final price determination notice: policy chapter A7 – risk and reward.](#)

cost of capital for the activity of supplying non-potable water to large industrial users only.

Specifically, Grant Thornton uplift Ofwat's January 2014 company cost of capital figure to reflect the impact of the greater non-diversifiable risks associated with supplying non-potable water to large industrial users only. This results in an activity-specific (pre-tax) cost of capital of 4.81%.

However, our assessment of the underlying company-wide cost of capital for a notional efficient company has changed since we published our January 2014 "Risk and Reward Guidance". As noted above, our December 2014 final PR14 price control determinations establishes a notional company-wide cost of capital of 3.74% which is slightly lower than the 3.84% calculated for our January 2014 guidance and used as the starting point of Grant Thornton's calculations.

Given that we have already established that our December 2014 final PR14 price control determination notional company-wide cost of capital is also a reasonable long term view, we have updated Grant Thornton's calculations to ensure that the "activity-specific" uplifts are applied to our most preferred cost of capital starting point.

Updating Grant Thornton's activity-specific WACC

Table 4 below reproduces Grant Thornton's published central estimates for the notional "activity-specific" cost of capital, together with the updated figure as a result of changing the starting point of their analysis to our preferred starting point of analysis:

Table 4: Updating Grant Thornton’s activity-specific cost of capital

Activity-specific cost of capital parameters	Grant Thornton’s August 2014 estimation⁷³	Ofwat’s update of Grant Thornton’s August 2014 estimation⁷⁴	Comment
Real risk-free rate	1.25%	1.25%	NO CHANGE
Equity market risk premium	5.50%	5.50%	The starting point to uplift to account for the greater “non-diversifiable” risk of supplying large users is the same across January and December 2014 cost of capital determinations for PR14.
Equity beta	0.93	0.93	
Cost of equity (post-tax)	6.37%	6.37%	
Overall cost of debt including fees	2.75%	2.59%	CHANGE Change to reflect our preferred starting point to perform an uplift based on PR14 Final Determination overall cost of debt.
Additional debt risk premium	0.22%	0.22%	NO CHANGE We apply Grant Thornton’s uplift to account for the impact on the overall cost of debt of the greater “non-diversifiable” risk of supplying large users.
Overall cost of debt (pre-tax)	2.97%	2.80%	CHANGE We apply Grant Thornton’s uplift to account for the impact on the overall cost of debt of the greater “non-diversifiable” risk of supplying large users.
Gearing	57.5%	57.5%	NO CHANGE We apply Grant Thornton’s gearing figure to account for the impact of the greater “non-diversifiable” risk of supplying large users.
WACC (Vanilla)	4.41%	4.32%	CHANGE We apply Grant Thornton’s uplifts to account for the impact on the overall cost of capital of the greater “non-diversifiable” risk of supplying large users

⁷³ Based on January 2014 PR14 “Risk and Reward Guidance”.

⁷⁴ Based on December 2014 PR14 Final Determinations.

Activity-specific cost of capital parameters	Grant Thornton's August 2014 estimation⁷³	Ofwat's update of Grant Thornton's August 2014 estimation⁷⁴	Comment
Effective tax rate	12.80%	10.00%	CHANGE Updated to reflect the average effective tax rate across regulated companies.
Real WACC (pre-tax)	4.81%	4.62%	CHANGE We apply Grant Thornton's uplifts to account for the impact on the overall cost of capital of the greater "non-diversifiable" risk of supplying large users.

As a result of the above, in this determination we apply a 4.62% pre-tax "activity-specific" cost of capital where appropriate.

Ofwat (The Water Services Regulation Authority) is a non-ministerial government department. We regulate the water sector in England and Wales. Our vision is to be a trusted and respected regulator, working at the leading edge, challenging ourselves and others to build trust and confidence in water.

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