

# The Framework for Upstream Pricing

United Utilities Water  
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This paper compares Ofwat’s Water 2020 proposals with the proposals for upstream pricing which we set out in our paper on upstream pricing last year. It also addresses issues of detailed design of access pricing raised in Ofwat’s consultation paper.

We considered that our proposals would achieve a pricing regime for water resources which:

- Provides the right economic incentives for entry, where this is efficient.
- Protects customers in terms of the overall price of water.
- Allows Ofwat to keep its promise in relation to remunerating historic investment (RCV).
- Protects some customers from significant bill increases by contributing to retention of regional average pricing across a company’s area.

The key points of our paper and Ofwat’s proposals are summarised in the table below.

Our proposals	Ofwat consultation	Comments
Access prices based on wholesale costs minus resources LRIC (long-run incremental costs)	Access prices based on “network plus” + an adjustment for the difference between LRIC and average cost	The two proposals effectively lead to the same access price and provide the right economic incentives for entry.
If RCV is to be split it should be based on a proportionate allocation of asset value – no focusing of the discount	RCV split based on a proportionate allocation of asset value	The proposal does not need the RCV to be split. However, if it is to be split then we support this approach. A focused approach would not result in efficient competition and the RCV allocated to the network business would in many cases be too low.
If RCV is split, then RCV protection to be provided through Contracts for Difference (CFDs)	RCV protection to be provided through a revenue control and new assets to be added to the RCV	Ofwat’s proposal provides equivalent protection – as competition develops introduction of CFDs may become desirable
Access price calculation to be based on AICs from Water Resource Management Plans (WRMPs) and using company average network costs	Access price calculation to be based AICs from WRMPs and using company average network costs	We support this proposal – it supports the continuation of regional average pricing

Although there are some difference between our proposals and Ofwat’s consultation, we consider that Ofwat’s consultation will achieve the objectives which we set out.

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### The Framework for Upstream Pricing

#### 1. Introduction

In July 2015 we published a paper<sup>1</sup> as our contribution to the debate on the approach to upstream pricing in future price reviews and in developing competition. This paper is an update to respond to Ofwat's Water 2020 proposals and address the questions raised in its consultation.

The following sections cover:

2. Our proposals on upstream pricing.
3. Ofwat's proposed approach to upstream pricing – the framework
4. Access pricing – structure and calculation issues

#### 2. Our proposals on upstream pricing

In July 2015 we published a paper as our contribution to the debate on the approach to upstream pricing in future price reviews and in developing competition. In this paper we proposed that:

- Access prices should be based on a “wholesale minus” approach, using total wholesale water costs minus Long-run Incremental Cost (LRIC). This would enable entry to the market where alternative providers can provide incremental resources more cheaply.
- LRICs would be set at the water resource zone level and based on Average Incremental Costs (AICs) from companies' Water Resource Management Plans (WRMPs).
- Access prices should be calculated using wholesale prices less WRZ LRIC, without adjustment for variations in local distribution costs.
- If wholesale prices were to be split, this could be done using a “contracts for difference” approach. This would enable all resources to be priced at the cost of new resources, with contracts to ensure that revenues for incumbents' existing resources are not increased or decreased. The contracts would provide equivalent protection for returns on existing assets to that which is provided currently by the RCV.
- If RCV is to be split, then the split should be in proportion to assets rather than focusing the discount on the network.

We considered that this approach would achieve a pricing regime for water resources which:

- Provides the right economic incentives for entry, where this is efficient.
- Protects customers in terms of the overall price of water.
- Allows Ofwat to keep its promise in relation to remunerating historic investment (RCV).
- Protect some customers from significant bill increases by contributing to retention of regional average pricing across a company's area.

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<sup>1</sup> Available at <http://corporate.unitedutilities.com/documents/upstream-pricing-concept-paper.pdf>

### 3. Ofwat’s proposed approach to upstream pricing – the framework

#### 3.1. Setting access prices

Ofwat has proposed that access prices should be based on “Network plus” price plus a compensation payment for the difference between LRICs and water resource average costs (AC). Water resource prices would be set on an AC basis. As Ofwat’s paper states, this has an identical effect to the proposed “wholesale minus” approach, because:

- Ofwat access price = Network plus price + (Water resource AC – LRIC)
- Total wholesale costs = Network plus price + Water resource AC
- So Ofwat access price = Total wholesale cost - LRIC

An example is shown in the table below.

	Cost per cu m
Resources – average cost	20p
Network plus – average cost	90p
Total wholesale cost	£1.10
Resources LRIC	40p
<b>Wholesale minus approach:</b>	= £1.10 – 40p
Access price = Wholesale - LRIC	= 70p
<b>“Network plus” price plus an adjustment</b>	= 90p + (20p – 40p)
Access price = Network plus price + (Resources AC - LRIC)	= 70p

We support the proposed approach as it achieves the objective of efficient entry.

#### 3.2. Setting separate price limits

Ofwat is proposing a total revenue control for water resources, with a return on RCV approach. We do not think that a separate price control is essential for promoting markets, improving availability of information, and setting incentives. Some potential options for supply-demand planning, such as raw water storage not involving abstraction, would not be included within the water resource price control. The separate price controls have the potential to distort incentives and competition.

If, however, separate price limits are to be set, then we support the proposed approach to water resource price-setting. We agree that this is the best approach to adopt because:

- New investment in water resources will require some confidence in the return but in many cases the use made of the new resource would not generate sufficient revenue because it may only be needed in dry years.

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- A differential approach to returns on new and existing assets could distort integrated use of resources within a zone, leading to sub-optimal operation.

Contracts for difference could also avoid these problems but we agree that the proposed approach will also successfully achieve the objectives. Dependent on the way in which competition develops, it could become desirable to implement a CFD approach. An approach in which price limits for water resources differ from the market price may not be sustainable in the long run.

#### 3.3. Splitting the RCV

Ofwat is proposing that the Water RCV should be allocated in proportion to assets, so the discount of RCV from full asset value is split proportionately across the value chain. As noted above, there is no need for separate price limits, and therefore no need to split the RCV, in order to promote market competition. However, if it is to be split then we agree that an unfocused approach is most appropriate for water resources. A focused approach would not result in efficient competition and the RCV which would be allocated to the network business would in many cases be too low or zero. Allocating all the RCV to the potentially competitive area of the business would be unbalanced and would increase the cost of capital because of the higher risk to investors.

#### 3.4. Payment flows

Ofwat sets out a number of options for how the LRIC – average cost differential compensation payment for entrants could be made:

- Between the incumbent and the third-party provider.
- Via an independent market operator.
- Embedded within the access price (Ofwat's preferred approach).
- Through a Contract for Difference (CFD) approach.

We agree that, if a CFD approach is not implemented, the simplest approach is to embed the differential compensation within the access price (and in the version of CFDs which we proposed this yields the same access price). The potential operation of CFDs is discussed below.

#### 3.5. Potential operation of contracts for difference

Ofwat's consultation considers the potential introduction of CFDs. Ofwat points out that:

- Our illustration of the operation of CFDs assumed a Market Operator would manage the payments, whereas they could be managed with the incumbent. We agree and consider that it would not be desirable to establish a separate Market Operator until the level of competition showed that a separate body was justified.

- That we showed a CFD based on the capacity and commodity costs but these could be separated. We agree that this should be considered as it is the investment in capacity where there needs to be reassurance about future returns.

Ofwat also suggested that CFDs could be operated through a retailer rebate approach, as we suggested, or through a wholesaler rebate approach. We agree – an extended and amended version of the tables set out in Ofwat’s access price appendix shows that retailers and wholesalers receive the same net revenue (see tables below). We consider that the retailer rebate approach may be more desirable to an entrant, because the full resource price is received immediately. However, either approach is workable if credit risks to wholesalers are mitigated.

**Table 1: Illustration of CFD under 'retailer rebate' approach**

		Existing resource	New resource	Total
Volume	Million cu m	1,000	100	1,100
Price received by wholesaler	£s per cu m	£0.40	£0.40	£0.40
Cost	£s per cu m	£0.25	£0.40	<b>£0.26</b>
CFD	£s per cu m	£0.15	£0.00	
Charge to retailers	£m	400	40	440
CFD to market operator - paid by wholesaler	£m	150	0	150
Net wholesaler revenue	£m	250	40	290
Rebate spread by MO - paid to retailers	£m	<b>-136.36</b>	<b>-13.64</b>	<b>-150</b>
Net retailer cost	£m	263.64	26.36	290
Charge to customers	(£m)	263.64	26.36	290
Price to customers	£s per cu m	0.264	0.264	<b>0.264</b>

**Table 2: Illustration of CFD under a 'wholesaler rebate' approach**

		Existing resource	New resource	Total
Volume	Million cu m	1,000	100	1,100
Price received by wholesaler	£s per cu m	£0.25	£0.25	£0.25
Cost	£s per cu m	£0.25	£0.40	<b>£0.264</b>
CFD	£s per cu m	£0.00	<b>-£0.15</b>	
Charge to retailers	£m	250	25	275
CFD to market operator - paid by retailers	£m	13.64	1.36	15
Net retailer cost	£m	263.64	26.36	290
CFD paid by MO to wholesalers	£m	0.00	15.00	15
Net wholesaler revenue	£m	250	40	290
Charge to customers	(£m)	263.64	26.36	290
Price to customers	£s per cu m	£0.264	£0.264	<b>£0.264</b>

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#### 4. Access pricing – structure and calculation issues

##### 4.1. Water treatment

Ofwat raises the issue of how to adjust access prices if treated water is put into the network, i.e.:

- Deducting LRIC of treatment from the network plus charge; or
- Deducting the average accounting cost of water treatment.

Ofwat proposes to adopt the LRIC approach as forward-looking costs provide the appropriate price signal. We agree that this would be the best approach, although more work will be needed on LRICs for treatment. Companies have AICs for resources but in many cases this is not available for treatment. Often resources are developed to replace existing sources where abstraction is being reduced for environmental reasons, so treatment for the new resource can be accommodated within existing capacity.

##### 4.2. The relevant geographic area for setting access prices

Ofwat's consultation proposes that access prices should be set at the Water Resource Zone level. We agree that this is the appropriate level. The extent of water scarcity should be equal across a zone, so the pricing signal to encourage entry should be uniform in the zone. Our proposals last year were based on access prices being set at WRZ level.

##### 4.3. Distribution costs

Ofwat's consultation proposes that access prices should be based on average distribution costs across a company's area. We agree that this is appropriate, because it is consistent with regional average pricing. Any other approach would distort the pricing signals based on the AICs for each WRZ.

Exceptions to this would be if an entrant wanted the water transported to a neighbouring WRZ, or if there was insufficient capacity at the point where the water is to be input. In such cases a case-specific calculation of an addition to the access charge would be appropriate.

##### 4.4. Deriving prices from AICs

We agree with the proposal in the calculation that LRIC should be based on AICs from WRMPs. Any additional costs for local distribution should, however, be excluded. Further guidance would be desirable to ensure a standard approach to AIC calculation.

Ofwat raises the issue of how to set the AIC on which the access price adjustment should be based. If this was set at the highest AIC within a WRMP 25-year time period then this could encourage entry too early, on the basis of high AICs towards the end of the period. In addition, exactly which schemes would be deferred depends on the size of the input from an entrant.

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Ofwat suggests that companies publish a list of relevant schemes that are being considered to meet demand / supply imbalances over a shorter period such as a rolling five-year period. For the purposes of developing a set of schemes for WRMPs a company can select the set of schemes which minimises costs. However, for setting access prices then the approach should not be too dependent on exactly which scheme a new entrant displaces. This would risk becoming too close to the current “AROW” approach.

We agree that a shorter period than 25 years is appropriate, although given the time it takes to plan and implement schemes a 5-year period could be too short – ten years could be an appropriate figure. Indicative access prices could be given for periods further out to encourage consideration of longer-term schemes.

AICs should generally be based on schemes to augment supply capacity. It may sometimes be appropriate to include demand management and leakage schemes in the calculation but often these may have been included to reflect local engagement priorities or the need to have a balance between supply augmentation and demand management. Therefore it may not be appropriate to allow for these schemes being displaced by new sources of water.

Ofwat notes that providers may require certainty around the future value of the compensation payment included in the access price. We agree and suggest that the compensation adjustment should be fixed for a long period, say the 25 years of a WRMP. Otherwise, there could be anomalies e.g. where a new entrant’s supply changes the supply-demand balance in a WRZ, AIC falls and as a result the compensation which that new entrant receives falls.

#### 4.5. Scarcity

Ofwat raises the issue of whether environmental costs could be included in pricing. Without this, there could be environmentally damaging trades from areas where water is relatively scarce. As noted in the consultation, this would ideally be addressed through abstraction charges which reflect environmental damage. There are, however, no current plans for such charges.

For Water Resource Management Plans, social and environmental costs can be assessed for potential water trades, in the same way as they are for an incumbent developing its own resources. Therefore AISCs (Average Incremental Social Costs, i.e. incremental costs including social and environmental costs) can be compared. For bilateral contracts with an entrant obtaining an access price, there is no mechanism for environmental costs to be taken into account. Therefore for setting the access price AICs should be used, rather than AISCs. In practice, Environment Agency control of abstraction may make environmentally damaging trades unlikely.

#### 4.6. Ofwat's role

Ofwat proposes that companies should set access prices but that Ofwat would set high-level rules and give guidance. We agree that this is appropriate and that some guidance would be desirable, e.g. in the calculation of AICs, to ensure that companies' calculations are comparable.

#### 5. Conclusions

We consider that Ofwat's proposals will achieve the objectives of:

- Providing the right economic incentives for entry, where this is efficient.
- Protecting customers in terms of the overall price of water.
- Allowing Ofwat to keep its promise in relation to remunerating historic investment (RCV).
- Protecting some customers from significant bill increases by contributing to retention of regional average pricing across a company's area.

There may need to be development of a CFD approach at a later stage, dependent on the way in which competition develops.