

## **Methodology information paper 5: RCV and depreciation**

### **Introduction**

In the Strategic Review of Charges 2006-10, we, the Commission, set an initial Regulatory Capital Value (RCV) for Scottish Water of around £4 billion for 2005-06, rising to around £5.4 billion by 2009-10.

This information paper details how we adopted the RCV framework at the Strategic Review of Charges 2006-10 and our proposals for the next regulatory period. The paper explains how we intend to roll the RCV forward and our proposals for the treatment of depreciation.

### **How we established an initial RCV in the Strategic Review of Charges 2006-10**

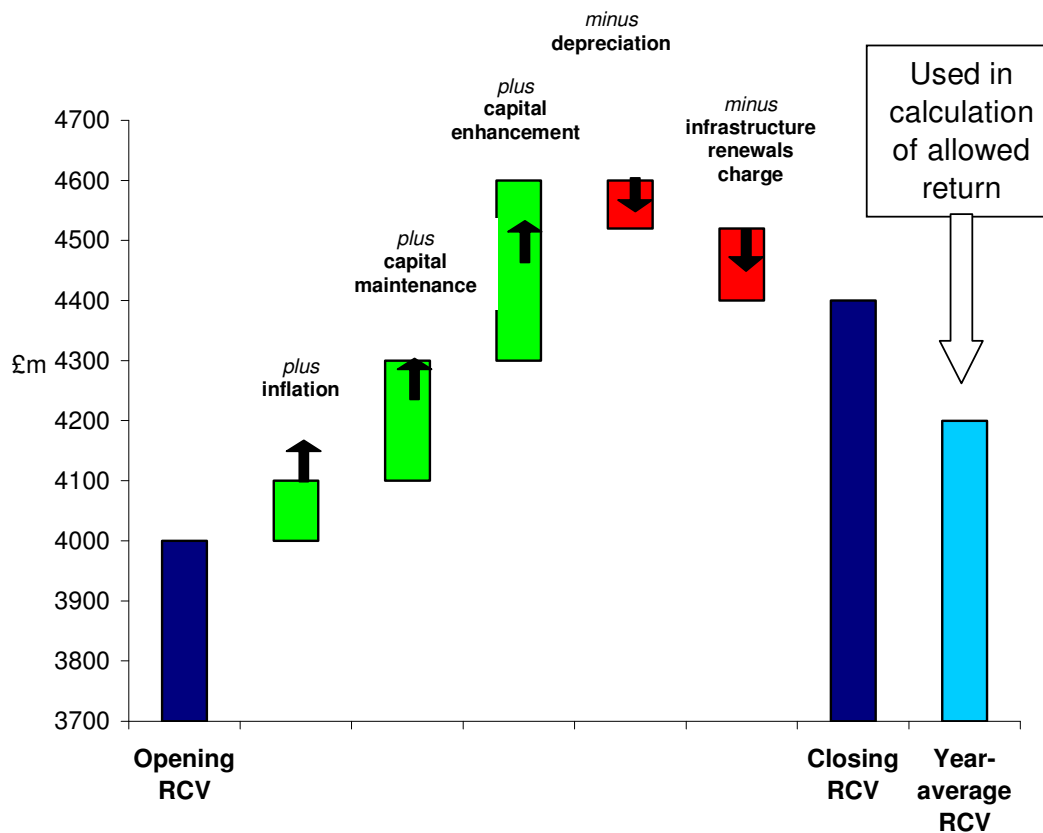
We set the RCV at a level in 2009-10 that would not require any adjustment for financial sustainability. We set the initial RCV such that allowed inflation, capital investment and depreciation would result in the targeted level of RCV in 2009-10.

We used a comparator approach to check whether the calculated initial RCV was consistent with the regulatory capital value of the companies . Our comparisons considered the relationship between a range of financial, customer and asset factors and the RCVs of the companies south of the border. We concluded that the initial RCV (required for financial sustainability) was consistent with the ranges analysed from the comparator approach.

### **Rolling forward the RCV**

Each year, the RCV changes in value in order to recognise net new capital investment (gross investment minus maintenance charges). This is known as rolling forward the RCV. We propose to use the same method for the 2010-14 review as we used for the 2006-10 review, which was itself based on Ofwat's method. This is shown in figure 1.

Figure 1: Annual rolling forward of the RCV



We will adjust the RCV for the Strategic Review of Charges 2010-14 to take account of differences between:

- our assumptions for 2006-10; and
- the delivery of investment over the 2006-10 regulatory control period.

We will use logging up/down to adjust the RCV for differences in assumptions such as the efficient expenditure on capital enhancement and the level of output delivery.

### Approach to depreciation

The RCV approach to price-setting distinguishes annual maintenance expenditure from the long-run estimated charges.

The water and sewerage industry has two broad types of asset. These are termed infrastructure (assets below ground as water mains and sewers) and non-infrastructure (above such ground assets such as treatment plants, offices, vans, computers, etc).

Above ground assets have a defined useful economic life (i.e. between 1 and 60 years) and therefore it is expected that these assets would lose their value over this period. This loss in value is called depreciation<sup>1</sup>. However, Scottish Water will be investing constantly to maintain these assets and therefore the RCV would recognise both purchases on new assets and depreciation of existing assets.

Infrastructure assets have a very long economic life and therefore the standard depreciation methodology is not used. Instead, the industry uses the infrastructure renewals charge (IRC) as a proxy for depreciation. The IRC is normally a long term average of the amount spent in maintaining the infrastructure assets (usually called infrastructure renewals expenditure). Although in the long run the average IRE would equal the IRC, the RCV will reflect differences between IRE and IRC in any given year.

In the Strategic Review of Charges 2006-10, we applied a relatively simple test to the allowance for depreciation and infrastructure renewals charge (IRC). We explained in our methodology consultation that this was because we did not consider that Scottish Water's information was sufficiently robust to withstand detailed scrutiny. Instead, we made a series of comparisons with England and Wales and established that our allowances for both depreciation and IRC were above those that could be justified by our benchmarking.

In practice, this did not affect the charges that customers pay, as the level of revenue was determined by financial ratios. It did, however, change the composition of our allowance – moving money from the allowed return to depreciation.

We propose to increase our scrutiny of this area insofar as the information allows us. There are two main reasons for this:

- Scottish Water is revaluing its assets; and
- increased transparency.

#### *Asset revaluation*

Prior to the 2005 review, Scottish Water valued its assets using the EARC (Equivalent Asset Replacement Cost) methodology. Ofwat asks the

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<sup>1</sup> There are many approaches to model this loss in value over time, but the most common methodology is 'straight line' depreciation. This means that the asset would lose its value in equal amounts per year throughout its life.

companies in England and Wales to value their assets using the MEAV (Modern Equivalent Asset Value) methodology.

We have asked Scottish Water to value its assets using the MEAV methodology. Scottish Water is due to submit a MEA valuation as part of its Regulatory Accounts for 2007-08. A different asset value may imply a different annual depreciation rate, which may affect either prices or the allowed return in the 2010-14 Review. We will therefore scrutinise carefully the asset value that Scottish Water submits.

### *Increased transparency*

In order to demonstrate that customers are paying for an appropriate level of capital maintenance through their bills, Ofwat applies two separate tests:

- renewals accounting methodology; and
- the 'broad equivalence' check.

Both tests perform a similar function, in that they check whether maintenance expenditure is in line with the maintenance charges that affect price limits. Table 1 compares these two tests. Ofwat stressed in its methodology consultation for the 2004 Price Review that neither assessment is applied mechanistically.

Table 1: **Comparison of renewals accounting and broad equivalence**

	<b>Renewals accounting</b>	<b>Broad equivalence</b>
<b>Maintenance expenditure</b>	IRE	Maintenance of non-infrastructure charge
<b>Accounting charge</b>	IRC	Current cost Depreciation
<b>Method of assessment</b>	Forward-looking	Forward and backward looking
<b>Time period of assessment</b>	15 years	28 years
<b>Tolerance</b>	IRC set equal to average IRE	5% of company turnover on an NPV basis.

We consider that we may be able to implement the renewals accounting check that IRC and IRE are in line over 15 years. However, we consider that the information required for the broad equivalence check may be too onerous and subjective at this stage as Scottish Water is still on the process of improving the knowledge about its asset base. Instead, we

propose to assess current cost depreciation over a similar period as the infrastructure renewals charge, but allow a greater tolerance for error.

We propose to ask Scottish Water to justify its current cost depreciation and infrastructure renewals charges with reference to long-run levels of maintenance in the industry in its business plan.

We propose to make the necessary adjustments to the depreciation charges if Scottish Water's approach is not sufficiently robust.

#### **Related Documents**

'The Strategic Review of Charges 2006-10: The draft determination', Volumes 3 and 5, Water Industry Commissioner for Scotland, June 2005.

'The Strategic Review of Charges 2006-10: The final determination', Water Industry Commission for Scotland, November 2005.