

Methodology Information Paper 25: The cost base approach

Introduction

This information paper explains the cost base approach to measuring capital procurement efficiency. It sets out Ofwat's use of the approach in setting prices and our plans to use it in the Strategic Review of Charges 2010-14.

The cost base approach

We explained in Information Paper 24 that there are different types of capital efficiency that we can consider when reviewing Scottish Water's capital investment proposals. One area of potential efficiency savings is through greater procurement efficiency. We assess procurement efficiency using a methodology known as the cost base approach.

The cost base is a database of costs, termed 'standard costs', for a wide range of standardised projects or units of work. These standardised projects are typical of investment in water and sewerage services (both maintenance and enhancement investment).

The cost base approach to assessing relative efficiency has been subject to detailed scrutiny by the Monopolies and Mergers Commission and the Competition Commission. Both found the approach to be fit for purpose.

Ofwat's use of the cost base approach

Ofwat uses the cost base approach to assess the relative efficiency of water companies in procuring and implementing capital projects. Ofwat uses the cost base technique to inform its assessment of relative efficiency for both capital maintenance and capital enhancement expenditure.

Ofwat's approach to analysing the cost base has a number of stages:

- review the submissions;
- assess company-specific factors;
- benchmark selection; and
- determine targets for catch-up improvement.

Review the submissions

Ofwat reviews the submissions received from the companies in order to:

- ensure that the standard costs that are submitted comply with the specifications and guidance;
- ensure that the engineering judgement grades¹ have been correctly applied and interpreted;
- confirm that companies have derived their standard cost estimates independently;
- subject all submissions to an independent audit; and
- ensure comparability between companies.

Assess company-specific factors

In its 2004 price determination, Ofwat allowed only one company-specific factor – an adjustment for regional variations in construction, labour and tender costs. Ofwat based its assessment of these adjustments on a study of the building and construction cost indices published by the Building Cost Information Service and the Department of Trade and Industry. Regional price factors were applied to the typical civil construction and plant installation elements of each standard cost submitted by the company. This generated company-specific regional price adjustments. The company-specific regional price adjustments ranged from 0.8-17.5% in the water service and 1.7-15.7% in the sewerage service.

Ofwat has not published detailed information about its methodology for calculating these price adjustments, nor has it published a list of the companies that were allowed adjustments.

Benchmark selection

Ofwat chooses as benchmark standard costs the lowest reported cost for each standard project, provided it complies with the following criteria:

- the standard cost used to derive the benchmark closely complied with the standard cost specification;
- at least 3% of the industry (measured in terms of turnover) reported unit costs at or below the benchmark standard cost;

¹ Engineering judgement grades are used to assign both a reliability and accuracy grade to each individual cost. A grade of A1 indicates that the cost is based on accurate company-specific data relating to an activity in which the company has considerable experience, whereas a grade of D4 is based on international/national estimates with no company experience.

- the standard cost was of sufficient robustness to warrant an engineering judgement grade of B3 or better; and
- single company standard costs were generally used to derive the benchmark for items commonly procured from a single source over a range of sizes.

In addition, at the 2004 price review, Ofwat asked Babbie Group to compile its own cost estimates for each standard cost in advance of the company submissions being received. These estimates were used to test the appropriateness of the benchmark choice.

Determine targets for catch-up improvement

Ofwat calculates the relative efficiency of each company by first comparing each reported standard cost with the chosen benchmark and then weighting the result according to capital investment in the Review period. In this way, standard costs for projects that represent a large proportion of the capital investment programme have proportionately greater influence on the overall assessment².

How we propose to apply the cost base approach in the Strategic Review of Charges 2010-14

Overall approach

Our current plan is to use Ofwat's cost base approach to assess Scottish Water's capital expenditure procurement efficiency in the Strategic Review of Charges 2010-14. In doing so, we would be following the same approach we used at the 2006-10 Review.

To inform our assessment we would have to ask Scottish Water to submit information on its 2007-08 cost base.

Review of Scottish Water's submission

We propose to review Scottish Water's submission to:

- ensure that the standard costs meet our specification and guidance;
- ensure that the engineering judgement grades have been correctly applied; and
- confirm that Scottish Water has derived its standard cost estimates independently.

² For further information about Ofwat's approach see 'Capital works unit costs in the water industry: Feedback on our analysis of the March 2003 water company cost base submissions', Ofwat, May 2003.

Company-specific factors

We will consider any special factors that Scottish Water brings to our attention. There are a number of factors that could be considered:

- Scotland's geography (size, remote islands, long coastline, topography);
- Scotland's settlement patterns (remote communities and concentrated, dense urban areas);
- the extent of the assets required to serve customers in Scotland (long mains, small isolated treatment works);
- the quality of the assets inherited by Scottish Water (condition and performance of the mains, sewers, treatment works, pumps etc); and
- the nature of the customer base.

However, we note that many of these factors could be relevant to one or more companies in England and Wales and that Ofwat did not take account of any such factors in its 2004 final determinations. Instead it only took account of regional pricing factors.

We also propose to take account of evidence about regional price variations in construction, labour and tender costs. As such, we would ask Scottish Water to bring any such factors to our attention.

Benchmark selection

We propose to apply the same criteria as Ofwat in determining the appropriate benchmark (these criteria are set out above).

Relative efficiency

In our view we should apply the same approach as Ofwat in calculating Scottish Water's relative efficiency (the approach is set out above).

Scope for improvement

Our current thinking is that Scottish Water should be required to narrow 75% of any assessed gap in its efficiency during the 2010-14 period.