

CASE STUDY: Capital Programme Unit Cost Assessment

UK Water Utility

Overview

A UK water distribution company appointed Enzen to study its Infrastructure and Non-Infrastructure projects to understand their unit cost positions with respect to other industries in UK. Enzen was also tasked to assist them to bring in efficiencies for their Capital Programme Investments, compared to the final determination from Ofwat, the UK Water industry Regulator.

Highlights

- A Summary cost assessment using charts and histograms
- A detailed gap analysis report between the as-is and desirable unit cost position
- Trend Analysis based on Historical Unit Cost
- Building of Statistical Relationships using Econometric Models
- Recommendation of tactical and strategic measures to address the gap in unit cost position

The Challenge

Water companies have their price caps reviewed every five years by the Water Regulator, Ofwat. The last such review concluded with a final determination (FD) in November 2009 (an event referred to as PR09), although the process of collecting information to support the FD spanned the previous three years. Part of this information collection related to efficiency comparisons between water companies, covering both operating costs (OPEX) and capital costs (CAPEX). The customer had a challenging FD and was keen to bring in efficiencies to the Capital Programme Investments.

The main mechanism used by Ofwat to make Capex efficiency comparisons in PR09 was called the Cost Base. The same approach was used by Ofwat in the previous three price reviews (PR94, PR99 and PR04). However, Ofwat has recently announced that it is likely to adopt a different approach in the next price review in 2014 (PR14).

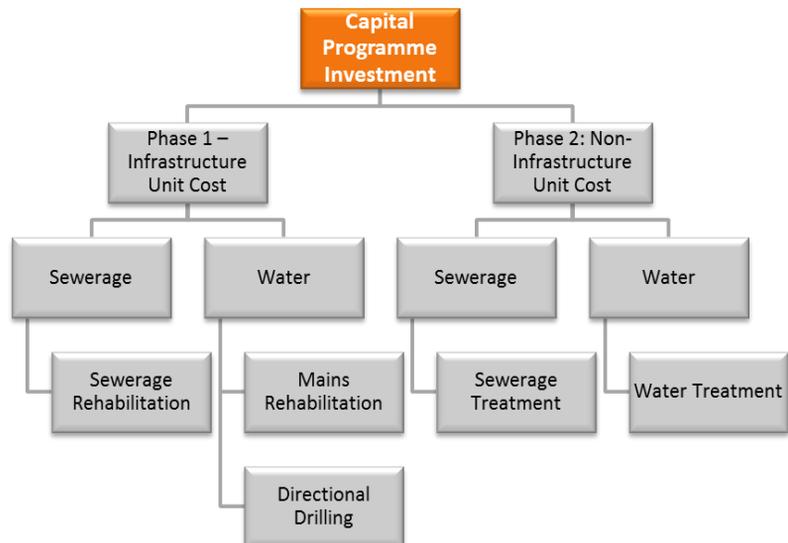
Given this context, Enzen was asked to undertake Unit Cost Assessment, Benchmarking & Efficiency Study for Capital Delivery Programme for customer's Distribution business.

Enzen Approach

Enzen adopted a two phase approach for the delivery of this project

- Phase 1: Infrastructure Unit Costs and the Current Capex Efficiency
- Phase 2: Non-Infrastructure Unit Costs

The customer initially gave an overview of infrastructure projects carried out in 2010/11. The key objective was to produce unit costs in the form £/metre of water pipeline replaced or sewer rehabilitated and to differentiate the costs for various surface type (e.g. open countryside at one extreme and busy urban road at the other). The analysis also included identification of cost variation for different pipe diameters. A summary of coverage areas in each phase is depicted below:



Key Benefits

- Highlighted the dynamic issues in procurement strategy
- Recommendations to improve its capital management process to move towards an idealised process
- Provided the customer with information on their relative industry position
- Clarity on corrective measures to be adopted into business strategy to transform the Capital Delivery function

The customer only had information on the overall costs, but there were no granular details such as unit cost information associated to each project. In addition to this, the project outputs and their costs were not linked at any detailed level.

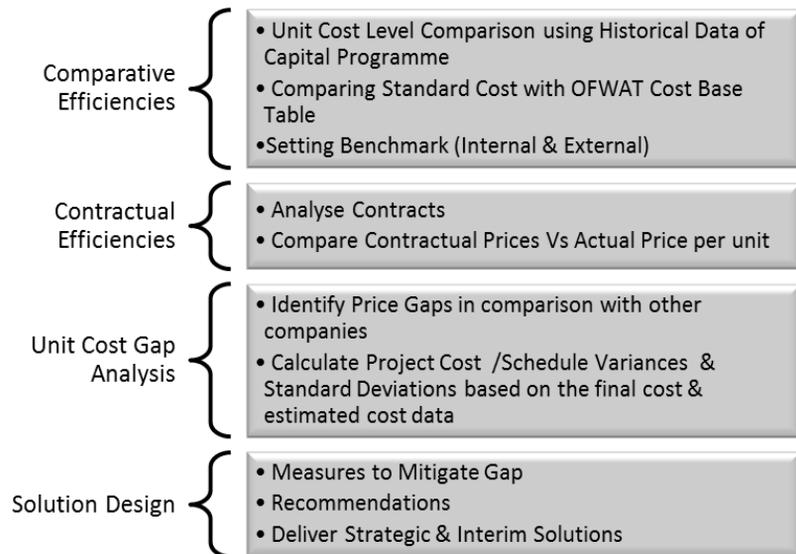
To overcome these challenges posed by a lack of data, Enzen had to adopt a different approach.

- In Phase-1, Enzen used the “Cost Base” as the mechanism to calculate the unit costs. Cost Base is the main mechanism used by Ofwat in PR09 to compare CAPEX of water companies.

Since the Cost Base exercise could not be repeated without the participation of other water companies, whose costs were also likely to have changed during the intervening period, Enzen used other techniques to assess customer’s CAPEX efficiency. These were mainly based on “Econometric Modelling”, which is a technique Ofwat also uses for OPEX efficiency comparisons.

- In Phase-2, the approach taken was to seek projects that matched or at least approximated to Cost Base stylised projects. Costed elements of the real projects were used to compare with the same elements in the matching projects and analysed the relative cost movements that were experienced in the customer’s investment programme since PR09.

Key Competency areas in Unit Cost Assessment of Capital Programme are described below:



This study has reviewed the current status of customer’s Capital Programme by (a) benchmarking with peers in the water industry (b) highlighted a number of issues in procurement strategy specific to Capital Programme (c) suggested business process improvements that can help realise business benefits and (d) brought in clarity around the corrective steps to be adopted for Capital Delivery.

It was also identified during the study that the weaknesses in the Business Processes have major implications on the Customer’s Capital Programme, compared to the absence of detailed Unit Cost information. The outcome of this study enabled the customer to define a robust business strategy for efficient Capital Delivery.

