

Getting ready for AMP6

Delivering Capex Programmes in the Water Sector

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PwC has worked with capital programme delivery organisations in many of the UK's water and sewerage companies, with key supporting functions such as engineering, project management, commercial, operations, finance and legal, as well as key stakeholders in the supply chain. These interactions have given us an insight into the issues and challenges faced by the industry in delivering the AMP5 Capex programme whilst it prepares for the new challenges of AMP6.

In this paper, we summarise some of the strategic questions being posed by our clients and seek to identify some common threads:

Frameworks and alliances – Lessons learnt

Most of the sector has established longer-term frameworks or alliances to support the delivery of capital programmes. Typically these arrangements service water companies on a multi-project basis and can provide support with the design and selection of the solutions, as well as their delivery. However questions are being raised about the success of these relationships:

- Are they working?
- What is the best organisational structure for an alliance or a framework?
- At what point should an alliance partner become involved in a project?
- What is the optimum number of alliance partners or contractors to deliver a programme?
- How should a programme of work be subdivided?
- Should the delivery team be fully integrated with the client's resources?

These are complex questions and the answers depend on a number of factors including the internal capabilities and the water company's approach to risk; how the water company measures success; and the geographical and physical nature of the water company's infrastructure. However, there are some principles which need to be in place to underpin any successful alliance arrangements. Two of the most important are:

1

It sounds obvious that alliances and frameworks are most successful when the goals set with the contractor fully align with those of the client organisation, but this is not put into practice all the time and it is often easier said than done. Starting with the contractual incentives of a relationship, we would expect to see them aligned with the strategic objectives and targets of that organisation based on the regulatory framework and requirements. Get it wrong and both parties can be tied into an inequitable situation for a long time.

2

Whether it's an alliance or a traditional construction contract, relationships which result in the contractor's involvement only commencing at the construction stage of a project are missing out on the contractor's knowledge and lessons learnt from the construction phase of other projects which could improve the initial design. In our experience, the more successful alliances truly leverage the potential upside of involving the contractor early, even at the overall programme management level. Consultation with the contractor(s) during a review of the entire delivery programme enables them to contribute to the investment decision process, even though the decision ultimately rests with the water company.

For example, contractors are often in a better position to help determine how to bundle or group projects into sub-programmes to achieve economies of scale, more efficient resource management and logistics, improve decisions on specialist plant purchases as well as providing a different perspective on holistic process solutions and treatment strategies at a catchment level.



Totex and asset management **Technical capability – outsource, co-source or in-house?**

Total expenditure (Totex) is the expenditure on an asset including both Capital Expenditure (Capex) and Operating Expenditure (Opex). Currently, most water companies measure Opex and Capex separately as required by Ofwat. However, it is anticipated that AMP6 will require water companies to use Totex as a key unit of measure to demonstrate that customers are getting best value for money from their investment. The measurement of Opex (and therefore Totex) is difficult to capture at an asset-level. Currently most water companies do not have an accurate understanding of the costs of operation of their existing assets at the necessary level of detail. This poses a challenge for water companies to assess the impact of capital projects (whether new assets or upgrades) based on Totex. If Ofwat do make Totex part of AMP6 then water companies need to:

- be ready to measure the impact;
- review project controls and capital project governance processes as well as the underlying asset management process and systems to ensure the correct investment decisions are made;
- consider whether their asset management system is fit for its strategic and operational purpose; and
- ensure the users of their asset management system are fully trained and adopting an asset management ethos. A system in itself doesn't lead to improved efficiency – it requires people to input data and use the outputs as part of their daily routine.

We are seeing other sectors making a step-change in the quality and robustness of their asset management processes and systems, both in terms of day-to-day performance reporting and management, and as the source of information for making decisions about their capital programme requirements.

Through previous AMPs, most of the larger water companies have gone through cycles of doing everything in-house (including process design, engineering and construction management) through to outsourcing the whole scope to delivery partners. These cycles appear to be continuing which raises a number of key questions. Using engineering as an example:

- Do water companies need to retain the ability to do full design or are they duplicating what they are already paying the supply chain to do (particularly where alliances are in place)?
- What level of engineering capability is required to effectively challenge the supply chain?
- Should the supply chain be provided with only performance or output specifications?
- Do any changes to an engineering organisation's capabilities get considered in the company's approach to risk management?

The answers to these questions inevitably depend on specific aspects such as the size and complexity of future projects, availability of skills in the local market place, legacy systems and embedded relationships. The starting point is defining and understanding the scope of the next AMP with the necessary degree of detail and certainty to permit decision-making and also early enough to facilitate incremental changes than the 'big-bang' changes which are prevalent towards the end of an AMP. Our observation is that many projects are rolled into AMPs without a business case being robustly challenged because the project may be up to 4-7 years away from implementation when the AMP is formulated.

We have observed other common symptoms of an incorrect balance between in-house and out-sourcing such as longer timescales for getting projects through the options analysis and design phase, large quantities of changes or engineering re-work during construction, poor or unmeasured engineering productivity, a lack of technical innovation or projects not realising the expected benefits. All of these symptoms can translate to higher costs and poor value for money. It's not easy to spot some of these inefficiencies from within an organisation but there are relatively simple methods for tracking them (such as engineering progress and performance reporting – EPPR) which can help management ensure the organisational configuration is right for their circumstances and enable them to make changes incrementally.





Managing the supply chain

There is always tension within a supply chain between time, cost and quality. The optimal point between these parameters (which are arguably always in a state of flux) which provides best value for money will vary depending on the company's strategy, its commercial plan, the in-house capabilities as well as external factors such as environmental standards and regulations.

Some of the key questions to be answered include:

- How do you know you have optimised the supply chain?
- How do you attract the 'right suppliers' to deliver your programme?
- Are you getting value for money from your supply chain?
- How can you measure it and prove it?
- Are you keeping the right level of competition in the process?

If you are using alliances to deliver your capital programme, do you have complete transparency of unit cost data and are you effectively measuring whether you are getting value for money? One approach taken is to tender a portion of the overall programme so that these selected projects can provide a benchmark for unit cost assessments. However, this is difficult to achieve in practice for a number of reasons including:

- projects are seldom similar enough to permit the like-for-like comparison;
- the level of detail and transparency of data available from tendered projects is often difficult to compare with data from alliances; and
- the fact that alliances are involved in projects prior to the point of normal tendering can distort data.

Even if an accurate comparison is possible it does not remove the one major issue associated with testing whether you are getting value for money from your alliance. This is the issue of trust, and, the message that it sends to your alliance partners – “we don't believe what you are telling us and you are not performing as well as we think you can”. The fact that you want to test whether you are getting value for money may mean that the parties in the alliance are not truly aligned and therefore, it might be better to focus energies on the relationship rather than trying to test something that is probably symptomatic of a wider issue.

Managing the supply chain can no longer be seen as just getting a great price. It has to ensure it delivers against all of the criteria by which a water company is measured, both, internally and externally.

How can we help you?

Our industry-wide insight and the knowledge we bring from other capital intensive infrastructure sectors, enables us to help you stay at the forefront of good practice and innovation in the water sector. Ultimately, we can help to ensure risks are being managed and Capex/Opex is being effectively and efficiently expended, thus adding value to your business and protecting your reputation. You have the full breadth of PwC's expertise at your disposal to reinforce your existing team; this includes Chartered Engineers, seasoned programme managers, asset management experts, organisation design and procurement specialists. The types of assignments we have undertaken are:

- Independent achievability reviews and turnarounds of major high-risk projects
- Optimisation of capital delivery organisations, procurement strategy and supply chain
- Commercial reviews, dispute readiness and support
- Asset management strategy and implementation
- Improving capital programme governance, project control, systems and reporting
- Whole-life cost modelling, reviews and monitoring



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