IWA launched its Task Group on Performance-based Contracting (PBC) in 2011 to provide thought leadership on this new topic. The article below discusses what PBC is about and its relevance to the water industry today, present the few projects that have been implemented so far, and how the new Task Group intends to support the development of PBC in upcoming years.

By Philippe Marin, Jan Janssens, Tom Williams and Vivian Castro-Woolbridge

What is Performance-based Contracting for services?
Performance-based contracting (PBC) is, simply speaking, a new mechanism for utilities to contract out works and services. The traditional way for a water utility to contract out for works or services is to pay the contractor a fixed fee, against specific deliverables. As such, a traditional contract focuses on inputs (e.g. to build a wastewater plant, deliver a study or replace pipes), regardless on the actual impact of the contract – that is, its outputs or outcomes for the utility (e.g. volumes of wastewater treated, improved operational performance, reduction of leakages).

With a performance-based service contract, remuneration becomes based, at least partly, on the achievement of pre-determined outputs or outcomes. The difference between these two models can be illustrated by the case of a service contract to reduce water leakage:

- Under a traditional, “input-based” contract, a private firm is contracted to carry a series of tasks (such as for instance hydraulic assessments, leakage detection, and repairs) and is paid according to a price schedule. There is no direct link between what the private firm is paid, and whether the level of leakage actually goes down. The contractor will still get paid for the full contractual amount as long as the work has been done, regardless of the outcome.

- Under a PBC, the contractor does receive some payment against completion of works, but a portion of its remuneration is also conditional to achieving specific targets for leakages reduction. So if it completes the work program in full but no significant reduction in leakage is achieved, the utility will pay only a portion of the contract agreed remuneration.

Greater incentives and flexibility for the contractor
Under the traditional approach, it is the responsibility of the utility (and its advisors) to design a work program for the contractor which shall lead to tangible performance improvement. As a consequence, the contractor has little flexibility for adjusting this program to the situation he will find in the field during implementation. And even when it has, the financial incentives in place tend to be inefficient. For instance, the contractor will typically prefer to execute the works for which it makes the largest profit under the contract’s cost schedule, instead of those leading to the best performance improvement for the utility. In practice, this generates significant inefficiencies, and the utility ends up taking most of the risks – so it is no surprise that most decision-makers have grown disappointed with such contracts…

Under a service PBC, the contractor has greater flexibility to decide which measures to undertake in order to achieve targets. This leaves room for innovation and creative solutions which the utility or its advisors may not have thought about. And it creates incentives for the contractor to focus on actions that have the greater impact on the utility’s performance.

Better contract efficiency: a win-win for both partners
Today’s water utilities around the world face increasing pressures to improve their operational efficiencies. While many realize that they cannot do it all alone, they are also wary about how to
contract out outside help. While traditional input-based contracts often bring disappointing results, delegating operations to private management under a PPP can also be fraught with many risks. For decision-makers, a service PBC offers a valuable “middle-ground” solution: more efficient than a traditional input-based service contracts, and less risky than a PPP.

The whole idea of PBC is to make service contracts more efficient, by optimizing incentives and allocating risks to the party more able to bear or mitigate it. While the contractor is required to take more risks, it has also more incentives to deliver results – translating for a competent contractor into more potential profits through the bonus payment. And for the contracting utility, it is less risky since it will pay the full price of the contract only if the targeted performance improvements are there. A well-designed PBC is a win-win for both the utility and its contractor.

When to use PBC: a few examples from projects

Service PBC is still an incipient phenomenon. Most contracts awarded so far focus on reducing levels of non-revenue water (NRW), covering real (physical) or/apparent (commercial) losses. Yet in practice, they may be applied to a wide variety of activities in the water utility’s value chain (treatment plants, networks, billing and collection), for improving either operational efficiency (reduce costs), service quality, or environmental compliance.

Below are some examples of contracts which have been identified so far by the Task Group. Most of the business activity appears concentrated in Asia and Latin America. Interesting facts can already be drawn from these examples:

- SABESP, the water utility of São Paulo state in Brazil, has been a pioneer in working with contractors through several service PBCs - dealing with various aspects of water losses and commercial efficiency;
- PBCs focusing solely on commercial efficiency (metering, billing and collection) have been implemented successfully in Burkina Faso, São Paulo (Brazil) and Adaba (Jordan);
- Some PBCs have been entirely financed by the private contractor, with 100% of the remuneration being variable and based on performance (as in São Paulo for large meters replacement and Emfuleni for pressure management);
- Karnataka (India) illustrates that a service PBC can work not just for NRW reduction, but also to improve service quality - in this case reestablishing continuous (24/7) water supply. The same idea underlies the new service PBC currently being tendered in Colon city (Panama), which covers NRW reduction, bills collection and service continuity through 4 indicators;
- Most importantly, many of these PBCs have shown remarkable results for the contracting utilities, often exceeding original expectations – which validates that PBC have the potential to be better instruments than traditional input-based contracts. In several cases, the PBC paid for itself, as the financial benefits for the utility (increased revenues or reduced costs) over the life of the contract where higher than the amount paid to the contractor.

What are the key screening criteria for a PBC?

Despite their potential, PBCs are not necessarily the most appropriate mechanism to meet a utility’s objectives in a given situation. The following criteria shall help determine whether the utility’s conditions are conducive to a successful PBC:

- Do potential benefits outweigh the costs? The utility needs to do a cost-benefit analysis, pondering especially whether there is real value in providing the contractor with flexibility on some tasks, and if this compensates for the higher price which the contractor shall probably require in exchange for taking more risks;
- Is quality baseline data available? This is essential for being able to properly measure performance improvements (comparing “before” and “after”). When no reliable baseline is in
place, this may still be done during the first phase of the contract, but it also makes the contract more risky due to potential conflicts during implementation;

- **Can the PBC be ring-fenced from utility management?** To justify a bonus payment, performance improvement need to be clearly linked to the specific actions of the contractor;

- **Do public procurement rules allow for contracting services under a PBC?** The potential constraints and limitations of the legal framework need to be well understood.

**What to look at when designing a PBC**

While PBCs have the potential to be better, more efficient contracts than the traditional, input-based service contracts, they tend also to be more complex. How much risk should be passed to the contractor depends on many factors, including *inter alia* the country and the utility context, governance structures, the specific performance improvement sought after, and the quality of available information. Good incentives are dependent not just on proper balance between fixed and variable payment, but also how the targets are determined, which indicators are used, and the level of flexibility left to the contractor.

As often, “the devil is in the details…” The list below highlights a few lessons that can already be drawn from the few PBC that have been experimented so far:

1. **Fixed vs. variable remuneration:** most PBCs are hybrid schemes, combining fixed payment with variable payments. While a 5-10% bonus provides some incentives for performance, a “true” PBC shall aim for at least 20 or 30% of the remuneration paid through variable fees – so as to include not just profit but also part of contractor’s costs;

2. **Contract clarity:** several contracts suffered from poorly drafted clauses that generated undue conflicts between the parties. Special care shall be taken to clearly define the expected inputs tied to the fixed payment, choose simple and objective indicators, quantify the targets, and spell out how the bonus formula shall be calculated;

3. **Financing:** PBCs will usually require some “upfront” private financing from the contractor, since part of the remuneration will be paid only after tangible results are shown. The amount expected shall be realistic given prevailing market conditions;

4. **Measuring results:** It is highly advisable to use the services of an independent, third-party to monitor and evaluate the contractor’s performance on a consistent and transparent basis;

5. **Setting targets:** For incentives to work, performance targets need to strike a balance between being ‘achievable’ (i.e. realistic) and sufficiently ambitious. They may also need some degree of flexibility, to adjust to unpredictable conditions;

6. **Ring-fencing:** the interface between the contractor and utility’s operations needs to be carefully analyzed and appropriate step taken to separate them - as with network sectorization in the case of NRW reduction;

7. **Ownership and sustainability:** Even with good ring-fencing, the outcome will still usually depend upon the collaboration of the utility’s staff. Capacity building is needed so that they fully understand the contractual approach. The contract must also include knowledge transfer so that the gains achieved can be made sustainable after the contractor leaves.

**PBC Task Group: the next steps**

With so many utilities around the world are struggling to improve their operational efficiency, keep costs down and improve service, the potential market for PBCs is quite significant. Yet this is also, still, a new field. How much risks are contractors willing to take in practice? How to deal with poor baseline data? How to ensure due coordination, and cooperation, between the contractor and the utility staff? For which performance dimensions is PBC more useful and relevant? As of now, there are still a limited number of contractors willing and able to undertake
such contracts. Much work remains to be done, especially as service PBCs as presented in this paper are just one example of the performance-based approach (Box 1). In the coming years, IWA’s Task Group on Performance-Based Contracting intends to offer a platform for knowledge exchanges between professionals, documenting PBC projects so as to help mainstream this new approach in the water industry. *A dedicated webpage shall soon be available on IWA website.*

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**Box 1: PBCs and the broader realm of Result-Based Financing (RBF) instruments**

Moving the contractual focus from *tasks* to *results* is a paradigm-shift which applies well beyond just service contracts. In fact, service PBCs fall under the broader realm of results-based finance (RBF) - a term for linking payments and subsidies to the achievement of predetermined performance targets. An example of RBF is the Output-Based Approach (OBA), developed by donor agencies over the last decade to enhance the efficiency of international aid programs.

While the focus of this paper is on PBCs’ applicability for service contracts, one should be aware that this approach has wider application. Management contracts, which are a form of PPP whereby a private partner manages all or a major part of operations, are also PBCs. Service contracts refer to a discrete component of service delivery (e.g. meters reading or billing), while management contracts are a more comprehensive contract for operating a utility. Also, PBCs do not necessarily involve a private contractor: they may be used when a public authority wants to formalize its contractual relationship with its public utility by introducing performance criteria and benchmarks (as with the “internal delegation” scheme successfully put in place in Uganda).