**TERMS OF REFERENCE FOR A SOLICITED WRC PROJECT**

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| **KEY STRATEGIC AREA** | Water Use, Wastewater Resources and Sanitation Futures |
| **THRUST** | 1. WATER SENSITIVE AND RESILIENT SETTLEMENTS |
| **PROGRAMME** | *Programme 4: Water services Institutional and management programme* |
| **TITLE** | **A study into examining Performance Based Contracting (PBC) for Non-Revenue Water (NRW) and its relevance into the South African Context** |

**Objectives**

* A review of the use of Performance or incentive base contracting to tackle issues related to NRW
* Based on this review and case studies, developing a framework for introducing PBCs for NRW in South Africa (this must cover legal, financial, regulatory, procurement and institutional requirements)
* Establishing private sector appetite for PBCs for NRW and their requirements
* Testing this framework with the South African water sector through workshops and key informant interviews
* Based on the inputs formulate a guidelines for structuring and mainstreaming PBCs for NRW in South Africa (giving key attention to risk and rewards)

**General**

The global volume of non-revenue water (NRW) has recently been conservatively estimated at 50 bn cubic metres/year, and valued at $15 bn. These figures highlight the problems that many water utilities experience in attempting to reduce NRW. One of the major challenges facing water utilities around the world is the high level of water losses, either through real (physical) losses or apparent (commercial) losses from customer meter under-registration and theft of water in various forms.

The financial viability and operational performance of water utilities is heavily affected by excessive levels of non-revenue water (NRW). Recent studies suggest NRW in sub-Saharan Africa is approximately 64 litres a day for each person supplied, an amount higher than the water readily available for individuals in many parts of the continent. The cost of these losses in the continent has been estimated at around $1.4 bn per year.

An NRW-PBC is a performance-based contract for outsourcing technical, commercial, and construction activities related to non-revenue water reduction, while providing the contractor with incentives to achieve the desired results. Unlike conventional NRW reduction contracts in which contractors are paid based on inputs, NRW-PBCs pay the contractors for outputs, such as amount of water saved, number of illegal connections detected, or number of customers receiving 24/7 service.

NRW-PBCs differ from management contracts, concessions, leases, or other forms of private sector participation in that the utility retains control of utility operations and assets. The PBC allows the utility to take advantage of the expertise and incentivized performance of specialized private sector firms to reduce NRW. NRW-PBCs do not entail privatization of management, operations, or assets.

NRW-PBCs can help utilities provide people with safe, reliable drinking water through quick and effective NRW reduction. Research has shown that NRW-PBCs can be as much as 68 percent more effective in achieving NRW reduction than utility-led NRW reduction programmes. They work well because they provide financial incentives that motivate the contractor to achieve NRW reduction. The incentives include output-based remuneration targets and financial penalties for not meeting targets. These incentives transfer project risk from the utility to the contractor.

Given the obstacles and associated benefits to resolving the problem, an increasing number of utilities are addressing NRW management through public-private partnership (PPP) contracts known as Performance Based Contracts (PBCs). PBCs are a form of results-based financing, where payment to the contractor is linked to performance. The contracting party assumes substantial risk but has the flexibility and discretion to determine how outcomes will be achieved. This mutually beneficial relationship allows utilities to access the technical expertise and equipment they lack, while minimizing the risk of not achieving NRW targets.

Furthermore, utilities retain control of their operations and assets, making NRW PBCs slightly different from traditional forms of private sector participation. PBCs require certain criteria and utility conditions to be effective. They may not be an appropriate mechanism for all situations and must be carefully implemented and managed according to local circumstances. It is also said that well-designed PBCs can be as much as 68% more effective in reducing NRW than initiatives undertaken independently by utilities.

**Specific**

The specific objectives are:

* An unpacking and understanding of PBCs model in context of water services delivery and of the PBC contract types, establish which one would be most amenable for South African conditions
* Capture successful case studies where PBCs have been used in NRW.
* Unpacking the alignment to water services planning and legislation
* Providing guidance on alignment to water service process and requirements.

**Expected outcomes and impacts:**

The study should unpack:

* + Why do utilities struggle with non-revenue water (NRW) reduction
  + Potential for private sector involvement in non-revenue water (NRW) reduction activities
    - Delegated management under a public private partnership (PPP) contract
    - Outsourcing of NRW reduction activities
    - Technical assistance contracts
  + Performance based contracting as a different approach
    - International case studies
    - South African case studies
  + Evaluation of the case study experiences
  + Learnings
  + Interviews will be held with:
    - Key stakeholders in the Water and Sanitation sector, including ethekwini Metro amongst others
    - Key stakeholders in the private sector with an interest in this topic (experience in PBC and /or NRW type projects)
    - Key stakeholders in the local government sector

**Outputs:**

1. Inception report
2. Progress report
3. Position paper
4. Framework exploring PBC for NRW in SA
5. Guidelines on PBC for NRW in SA
6. Workshops
7. Final research report

**Lighthouse:**

* Water-Energy-Food Nexus
* Climate Change

**Impact Areas:**

* Water and the Economy; Water and the Environment; Water and Society

**Knowledge Tree**

* Sustainable Development Solutions

**Time Frame:** 6 months

**Total Funds Available:** R 500 000.00 inclusive of VAT.