

Photo Credit: [Image by Freepik](#)



Contracting Tools for Non-Revenue Water Reduction

[Download](#) [Chatbot](#)

What is Non-Revenue Water (NRW)?

When water is processed and distributed to customers, not all of it is paid for. We call this *non-revenue water*—or NRW. Technically, it is the difference between the volume of water that is treated and distributed and the volume billed to consumers. NRW is an expensive problem—globally, about \$14 billion is lost in annual revenue, which hurts both utility cash flow and indirectly, customers.

Performance-Based Contracting Tools for Non-Revenue Water Reduction

In this Section you will find more on Performance-based contracts and Project Preparation, Resources, Case Studies and Training:

- [Performance-Based Contracting Tools for Non-Revenue Water Reduction Project Preparation Process](#)
- [Performance-Based Contracting Tools for Non-Revenue Water Reduction Tools & Resources](#)
- [Performance-Based Contracting Tools for Non-Revenue Water Reduction Case Studies](#)
- [Performance-Based Contracting Tools for Non-Revenue Water Reduction Training](#)

The section is developed by the following partner:

- [Inter-American Development Bank \(IDB\)](#)

- [International Water Association \(IWA\)](#)
- [Public-Private Infrastructure Advisory Facility \(PPIAF\)](#)
- [World Bank Group](#)

Benefits of Reducing Non-Revenue Water

- it can significantly improve cash flow and financial viability of utilities.
- It enables more people to have access to water connections, and at a higher quality of service, with existing resources.
- it reduces greenhouse gas emissions per unit of water delivered, which promotes climate resilience.

Key Sources of Non-Revenue Water

- physical losses (think of a leaky pipe),
- commercial losses, and
- authorized consumption that is unbilled.

Despite the benefits, however, many utilities struggle to achieve significant reductions because they lack the necessary capital, equipment, and expertise.

Reducing Non-Revenue Water through Performance-Based Contracts

Performance-based contracts (or PBCs) are one way to tackle NRW, especially when resources are tight, when capacity is not available or when the utility has a significant backlog that it needs an extra hand with. Analysis shows that NRW-PBCs are about 70 percent more effective in achieving NRW reduction than utility-led NRW reduction programs.

PBCs are not PPPs, they are an incentivized form of service contract. Under a PBC, a public utility partners only shifts the responsibility for reducing NRW to a private company.

However, PBCs are not an appropriate in every case. If the PBC is to be successful and cost effective, the underlying reasons for the NRW, the costs and benefits of reduction, and the contractual specifics must all be clearly specified.

Related Content

- [Water & Sanitation PPPs](#)
- [Case Studies and Lessons Learned - Water](#)
- [Sample TORs by Project](#)

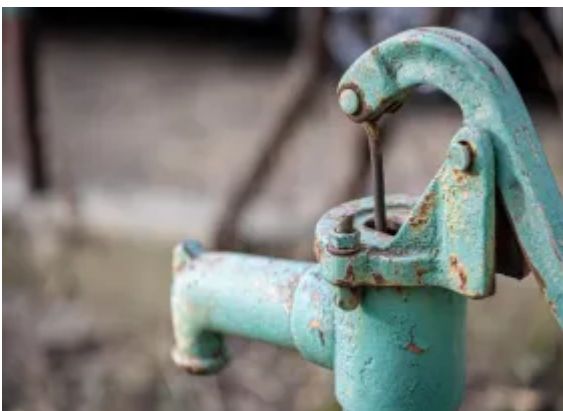
Additional Resources

- [Selected World Bank Tools](#)

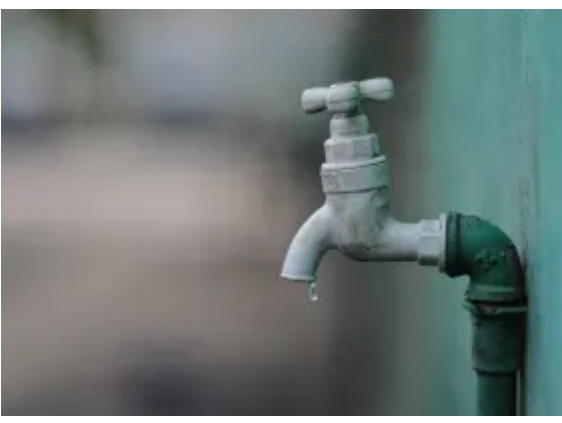
- [Transportation Toolkits](#)
- [Waste Management Toolkits](#)
- [Water & Sanitation Toolkits](#)
- [Waste Management Toolkits](#)
- [Climate Toolkits](#)
- [Gender PPP Toolkit](#)
- [Other PPP Toolkits](#)



[Revenue Water Reduction Project Preparation Process](#)



[Revenue Water Reduction Tools & Resources](#)



[Performance-Based Contracting for Non-Revenue Water Reduction Training](#)

Disclaimer: *The resources on this site is usually managed by third party websites. The World Bank does not take responsibility for the accuracy, completeness, or quality of the information provided, or for any broken links or moved resources. Any changes in the underlying website or link may result in changes to the analysis and recommendations set forth on the Public-Private Partnership Resource Center. The inclusion of documents on this website should not be construed as either a commitment to provide financing or an endorsement by the World Bank of the quality of the document or project. If you have any comments on any of the links provided on the Public-Private Partnership Resource Center, please get in touch [here](#)*