

Options for Outsourcing of NRW Management

Non-Revenue Water Management Training
DMCI Homes Corporate Center, Nov 18-19, 2010



Outline of this Presentation



- Introduction
- Performance Based Contracts
- Case Studies
- Preparing Performance Based Contracts
- Conclusions

Introduction

Water losses are the single biggest reason for poor utility performance





Know-how, tools and equipment are readily available – so why do we still have a problem?

Main Reasons for High NRW

- Lack of management focus
- Lack of understanding
- Lack of staff motivation and incentives
- Lack of staff qualification and training
- Poor construction standards – especially service connections
- Absence of Active Leakage Control
- Lack of capacity to embark on large water loss reduction program

- NRW beyond 35% not unusual
 - Indonesia (38% - PDAMs)
 - Philippines (35% - Water Districts)
 - India (40% - 20 ULBs)
- Realization by water utilities that they need help
- 2010 WaterLinks survey yielded NRW management as top priority for utility twinning under the WOPs program

Outsourcing of NRW activities not new



- Training and capacity building
- Consultancy services for strategy design
- Consultancy services for DMA design
- Leak detection contracts
- Leak repair contracts
- Civil works contracts (DMA establishment, pipeline replacement)
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- **BUT: nobody is accountable and NRW reduction is not certain**

A possible solution:



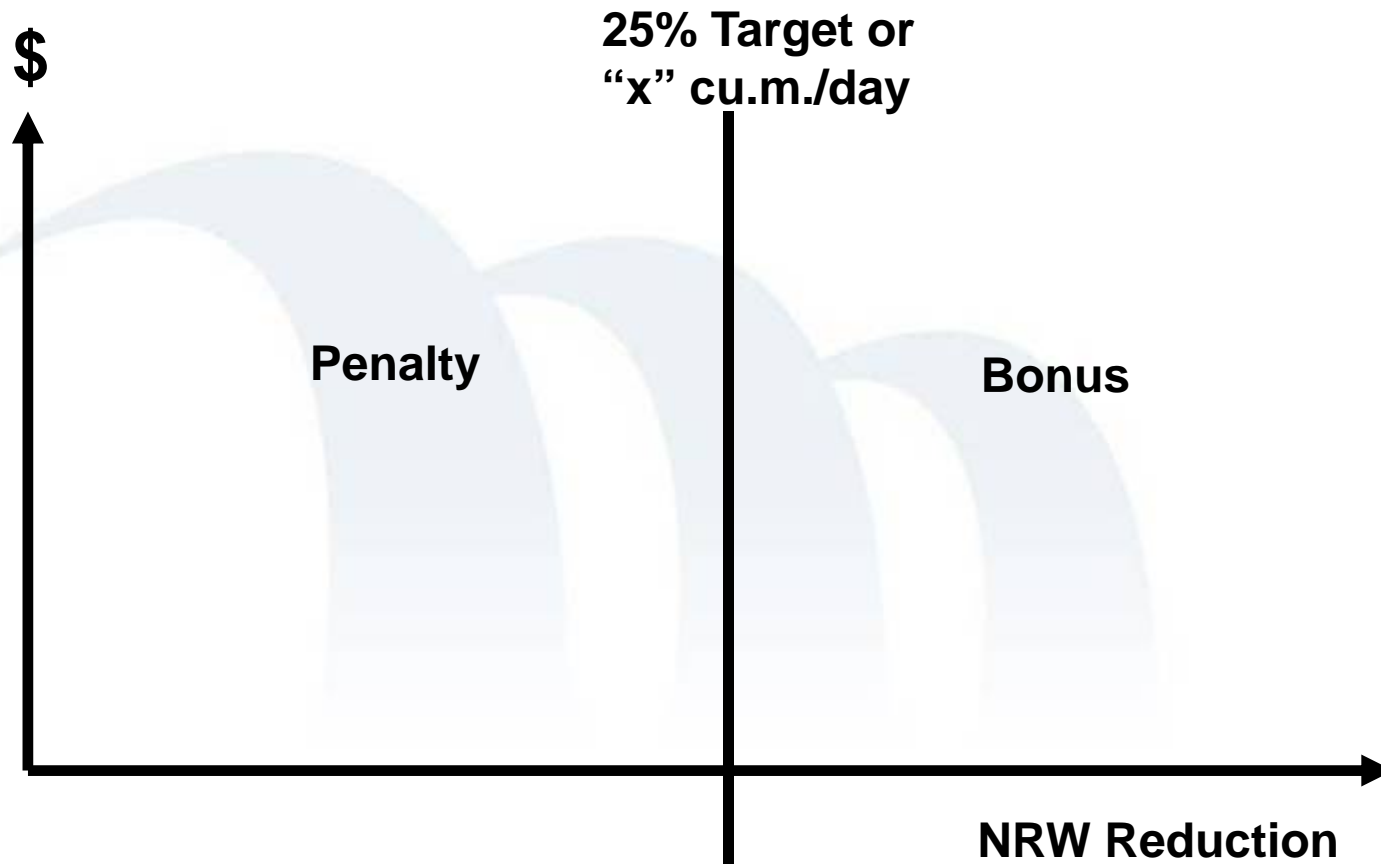
Performance Based Contracts

Target Contracts vs PBCs



- NRW to be reduced by a fixed or specific volume or percentage
- Penalties/bonus apply if targets missed/achieved
- No incentive to increase efficiency once target is reached – no bonus beyond target
- BUT there is a need for a better term as even PBCs have a target!

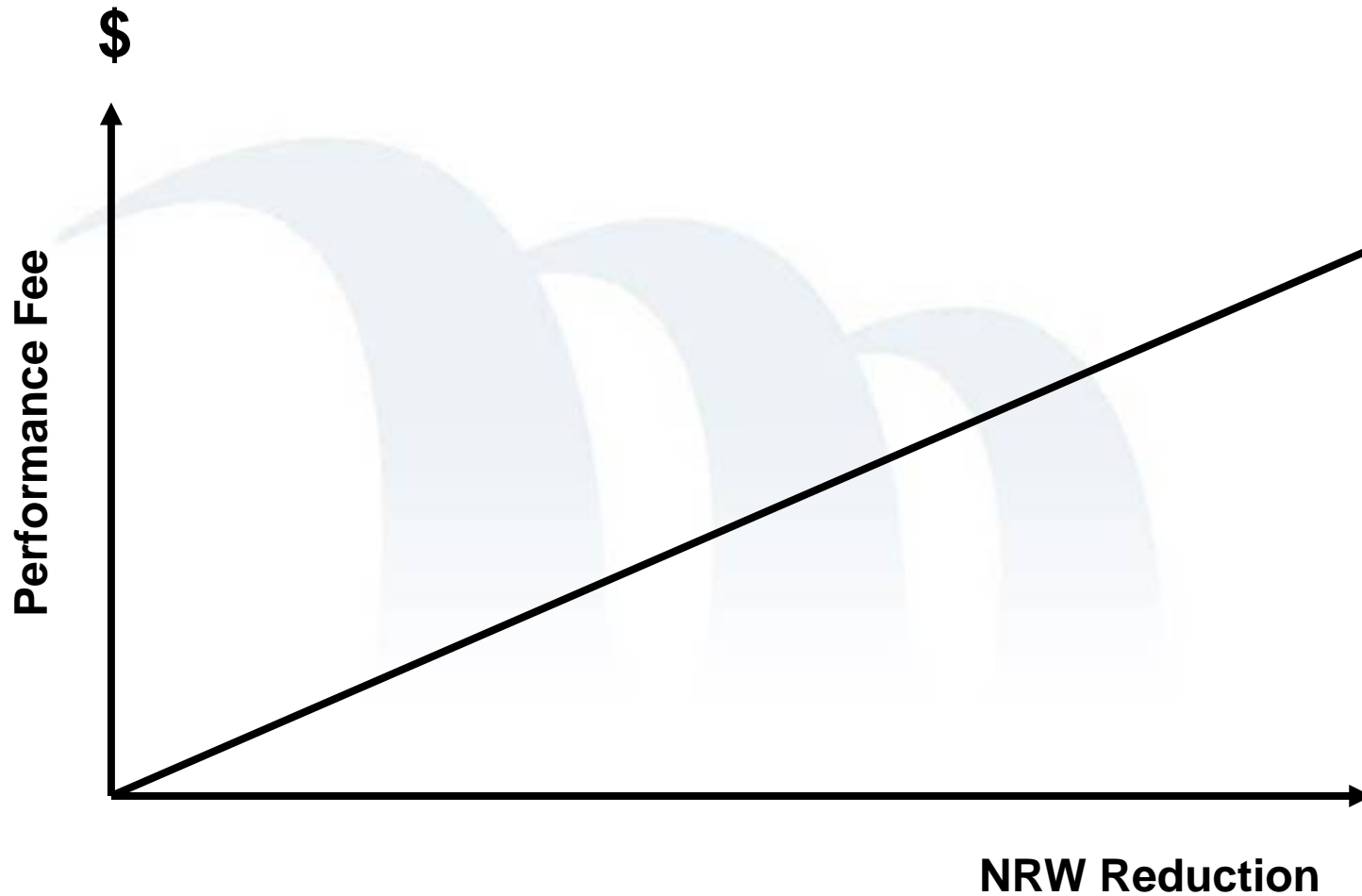
Pure Target Contract



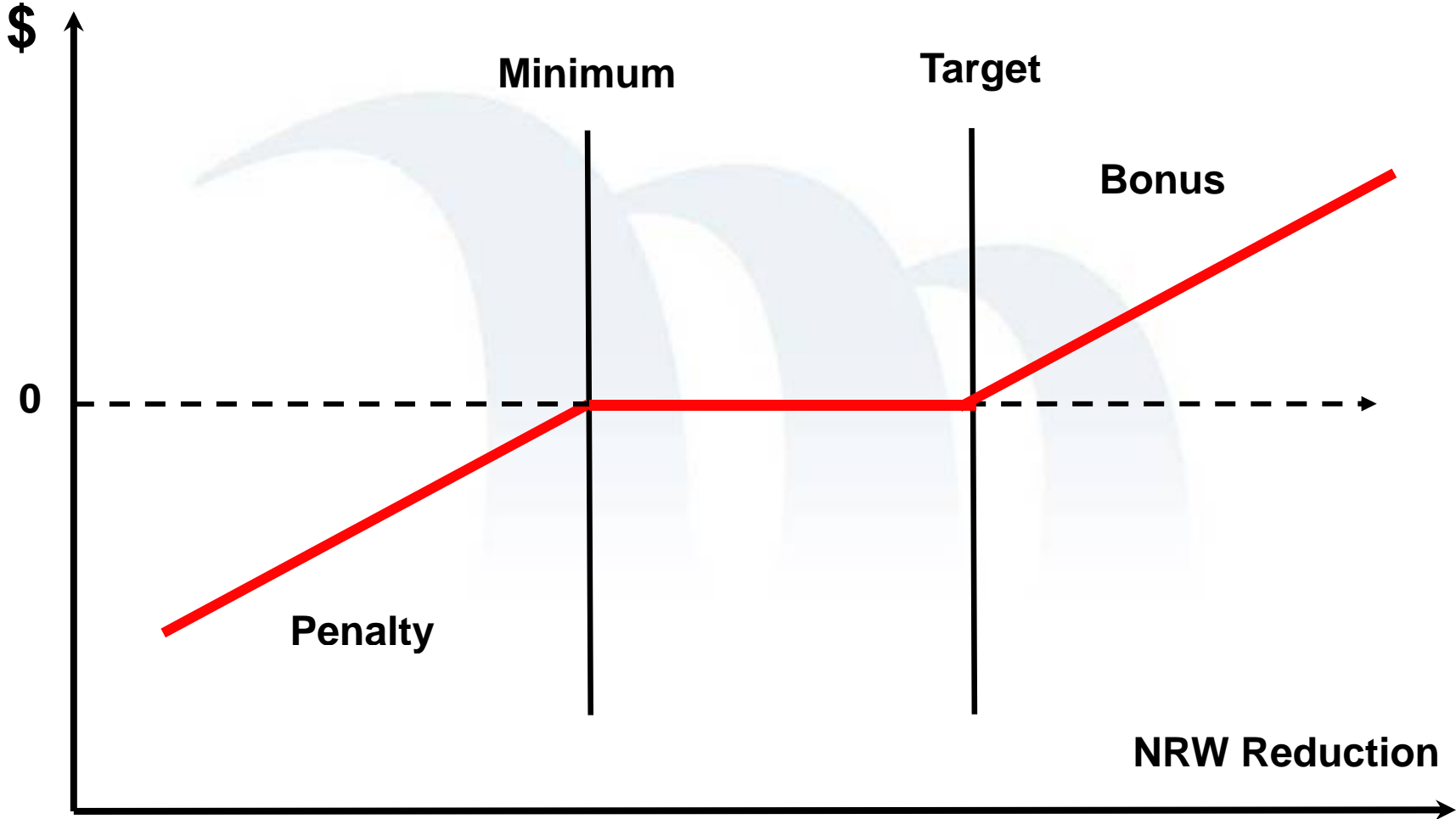
- Phase 1: 18 months (Sept '98 – Mar '00)
- Contract value RM 17.1 M (USD 4.5 million then)
- Performance Targets
 - physical losses reduction 10,450 m³/day
 - meter accuracy improvement 6,400 m³/day
 - **Overall NRW Reduction 18,540 m³/day**
- Price included
 - Planning, engineering, leak detection, construction supervision
 - Repair materials, meters, equipment
 - All required civil, repair and installation works

\$

Pure Performance Based Contract



Performance Based + Fixed Fee



Ho Chi Minh City, Vietnam (2008-2012)



- 4 Years Leakage Reduction Phase; 1 Year Maintenance Phase; 18 months Defect Liability Period
- Fixed fee (small)
 - Time schedule for DMA establishment
 - Minimum leakage reduction targets
 - Obligation to maintain leakage at low levels after repair
- Performance fee based on measured volumetric leakage reduction (m³/d) on DMA basis
- Provisions if things go wrong:
 - Liquidated damages if targets not achieved
 - Special retention of performance fee
 - General performance security

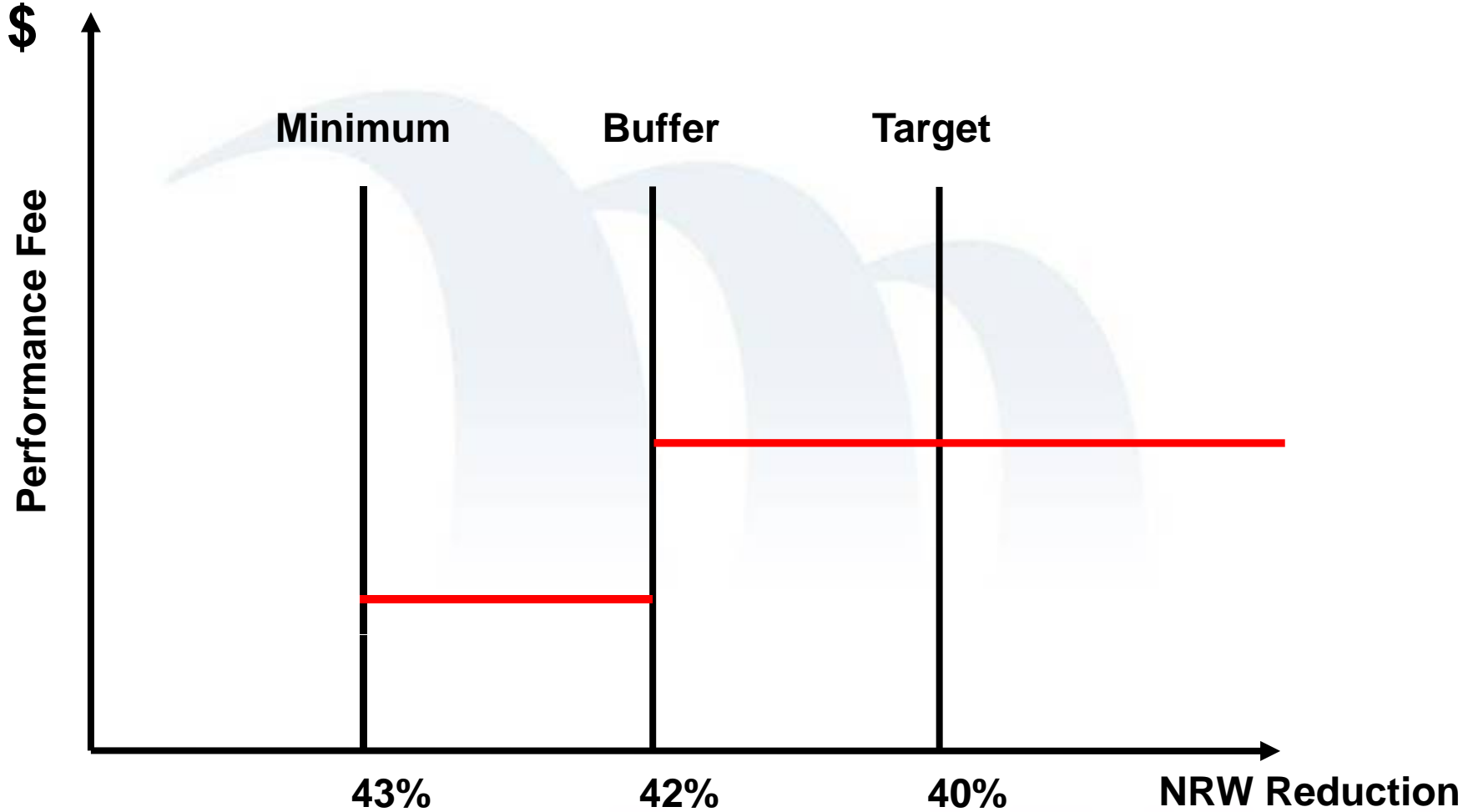
Karnataka, India (KUWASIP Project) 2004-2008



- Contract for rehabilitation, operation and management of water service Demonstration Zones
- Contract duration: 3.5 years
- Fee divided into fixed and performance fee – 60:40
- Performance fee after achieving performance targets
- Capital expenditure limited to a maximum ceiling
- If capital expenditure exceeded, Contractor to bear additional expenditure
- Bonus if saving is more than 25% of maximum ceiling
- Bonus if real loss reduction is below stipulated limit
- Bonus if increase in billed volume is above stipulated limit
- Penalized if minimum stipulated targets not achieved in time—non payment of Performance Remuneration
- Termination of contract if achievement of targets beyond limits

Source: Veolia

Performance Based + Fixed Fee

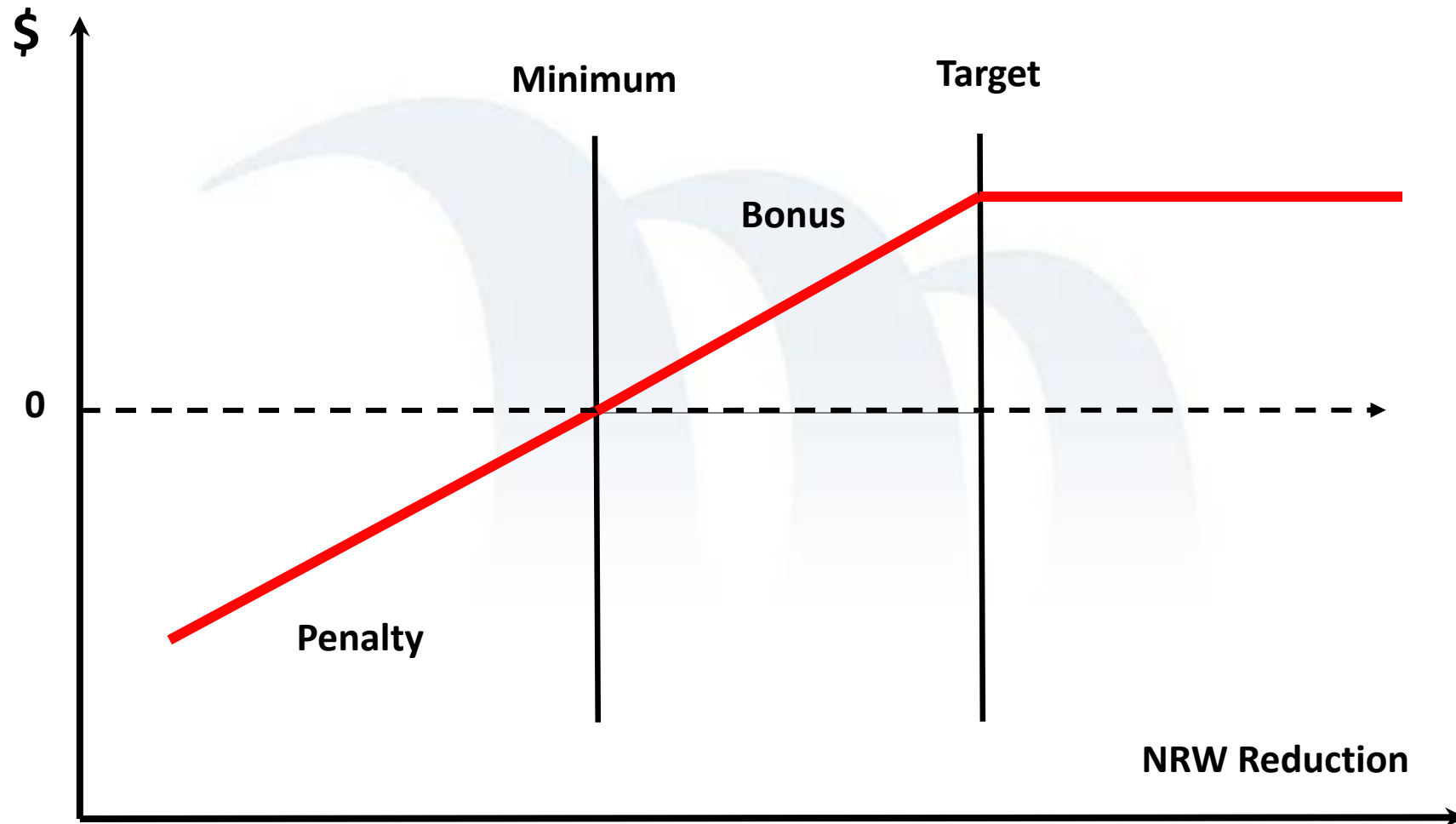


West Manila, Philippines



- 4 year contract (2009-2012)
- NRW reduction targets:
 - Annual targets
 - 40% NRW at end of 2012
- Fixed fee (insignificant)
- Reimbursable fee (covers man-month costs, travel and accommodation)
- Performance fee
 - Grace buffer of not less than 2% of annual NRW target
 - Above 2% but less than 3%, 50% of fee
 - Beyond 3%, no fee

Incentive for “high enough performance” (max at target)



Source: Didier Caron

SEDIF (France)



- SEDIF; water utility for suburbs of Paris
- 4 million population
- Delegated operations contract
- 12 year contract beginning January 2011
- Euros 3.5 billion
- Bonus if targets are reached and drives the profit of the Contractor
- Bonus capped

- Develop NRW strategy
- Choose PBC model
 - What will private contractor to do?
 - How works will be financed?
- Draft PBC contract which must be:
 - Fair to both parties
 - Balanced risk-allocation between parties
 - Clear delineation of roles
 - Clear payment structure
 - Allowance for contract variation; amendments
 - Simple!

Some points to consider

- Get an Advisor to assist in PBC design
- Design weakness often lead to bid and contract failures i.e. India
- Set reasonable targets – need to demonstrate success fast
- Need substantial investment from utility
- Maximize learning from private contractor – who will do the work when contractor leaves? e.g. PPWSA

Conclusions



- Well designed PBCs have yielded good results
- Financial benefits of successful PBCs very clear
- BUT very few and far between
- Need involvement of IFIs to promote PBCs
- To scale up, need to find ways to make PBCs financially attractive



Thank you

