

SMART WATER SUPPLY

Guideline No. 2.4 (i) provides for adequate water supply as core infrastructure element of a Smart City. The key features of a Smart water supply system are given below.

1. Single agency responsible for Study, Rehabilitation and Maintenance of water supply for long term 10-15 years.
2. DMA based approach for managing water supply in the city with focus on NRW reduction and with the purpose to target 24x7 water supply gradually. Penalty for non-achievement of NRW target and bonus for exceeding the target.
3. Assets mapping on GIS for maintaining data for future use, Hydraulic modelling, Water balance and establishment of DMAs are key steps towards the Smart water supply management.
4. Provision of 100% smart metering at consumer end with automated meter reading provision (AMR) meters with feature to record daily water consumption data.
5. Unauthorised connections to be made legal after persuasion and through capacity building with help of IEC activities.
6. Provision of Electromagnetic flow meters with SCADA control at all important delivery points (at the outlet of WTPs) and at the entry of DMAs for maintaining quantum of water supplied from source.
7. Pressure gauges at identified locations to facilitate in tracing any leakage, theft or NRW.
8. Active leakage control and leak identification and rectification on continuous basis using latest tools.
9. Regular deployment of experts for addressing the leakage and NRW issues.
10. Payment to the contractor linked with performance during the entire contract.
 - i. Design and management component for NRW reduction - 60:40 (fixed payment : performance based payment)
 - ii. System rehabilitation and augmentation works - 80:20 (fixed payment : performance based payment)
11. The implementation stages are (a) Study and Design period – 12 months (b) Establishment of DMAs – 12 to 36 months (c) Rehabilitation and development of infrastructure –12 to 48 months (d) Monitoring of NRW –12 to 120 months.
12. Establishment of 24x7 consumer service centre for timely redressal of the complaints.
13. Bill generation responsibility with the operator, the responsibility of collection with ULB.
14. The NRW reduction and metering is expected to generate revenue sufficient to cover substantial capital and O&M cost in 10-15 years.
15. Introduction of PPP under water supply distribution at the closure of PBMC contract can