CHAPTER 2 - COMMISSIONING AND WATER MANAGEMENT

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602.01 WATER METERING

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INTENT

To monitor building water performance and to encourage effective water management practices.

REQUIREMENT

For all new buildings, meters must be installed to measure and record water demand and consumption of the facility as a whole. It must also provide accurate records of consumption (tariff class meters). All meters should be approved by DEWA and comply with DEWA specifications.

A. For all buildings having a cooling load of at least 1 MW or gross floor area of 5,000 m^2 or greater, additional water metering must be installed to record consumption data for major water use of the building and major water uses in and around the building.

B. The building operator shall be responsible for recording water consumption for each individual meter. Records must be kept for 5 years.

C. Each individual tenancy in the building must have a sub-meter installed when a building tariff meter is not present.

D. Where a Building Management System (BMS) or Central Control and Monitoring System (CCMS) is installed, metering must be integrated into the system to allow real time profiling and management of water demand and consumption.

E. Virtual meters using run-hours are not acceptable as sub-meters.

F. The sub-meters should be used for demand management and cost allocation purposes.

SIGNIFICANCE

Water sub-metering enables building's facility team to identify and monitor different patterns of water use and to implement actions to reduce water use. It also helps to ensure that the water efficient features and techniques are effectively implemented and water savings are achieved.

Individual tenant sub-metering can also encourage behavioural reductions in consumption by increasing consumer knowledge about their water consumption. It will potentially enable tenants in multi-occupancy buildings to be charged for water, based on their actual consumption.

Advanced water metering integrated with Building Management System (BMS) or Central Control and Monitoring System (CCMS) can also enable the building operators to detect water leakage in the supply pipeline, hence prevent water loss, excessive bill and in some cases prevent significant damage and cost of repair resulting from leakage.