

APPLICABILITY

This regulation is applicable to all building types. Refer to Table 101.07(1) in Section One - Administration for detailed applicability levels.

IMPLEMENTATION

Buildings must have a meter to measure and record water consumption of the building as a whole. If there is no separate DEWA tariff meter for each individual tenancy, then a separate meter should be provided to measure the water consumption of the building.

Metering strategies should be considered for all the buildings having a cooling load of at least 1 MW or gross floor area of 5,000 m² or greater at the design stage. Metering strategies should identify all major water use in and around the building, to ensure requirements of this regulation are met. Major water uses generally include cooling tower make up water, irrigation systems, swimming pools, water features, toilet facilities, kitchen facilities etc. Buildings using non-potable water, such as Treated Sewage Effluent (TSE) or greywater, the consumption of them should also be metered.

All tenants must have sub-meters (fig. 602.01(1)), in case building tariff meter is not installed. These meters will only be used for the demand management and the cost allocation. The sub-meters must meet the DEWA specifications and should be approved by DEWA. Virtual meters using run-hours are not acceptable as sub-meters.

Project teams should also ensure the water sub-meters are suited to the pipe size requirements, to avoid water pressure drop or inaccurate readings.



Fig. 602.01(1): Typical Water Sub-Meter

For projects having Building Management System (BMS) or Central Control and Monitoring System (CCMS), all water sub-meters must be integrated to record both water consumption and demand from each meter, on hourly, daily, monthly and annual basis. BMS or CCMS should also carry out real time profiling and efficiently manage the water demand and consumption. Meter reading records must be kept at least for 5 years and should be available on-site for DM inspection.

In the projects that do not have BMS or CCMS, the building operator must record water consumption on monthly basis from all sub-meters. Annual usage data also should be recorded. The readings shall be recorded in the building logbook. Logbook should maintain the records for at least 5 years and should be available on-site for DM inspection.