503.03 Electricity Metering

For all new buildings, meters must be fitted to measure and record electricity demand and consumption of the facility as a whole and to provide accurate records of consumption,

A. For all buildings with a cooling load of at least one (1) megawatt (MW) or gross floor area of 5,000 sq.M or greater , additional electrical sub-metering (of tariff class accuracy) must be installed to record demand and consumption data for each major energy-consuming system in the building. At a minimum, all major energy consuming systems with a load of hundred (100) kilowatts (kW) or greater must be sub-metered.

B. The building operator shall be responsible for recording details of the energy consumption for the building and ensuring that major electricity uses are sub-metered. Records must be kept for five years.

C. Each individual tenancy in the building must have a sub-meter installed when a building tariff meter is not present. These sub-meters should only be for demand management and electricity cost allocation purposes.

D. Where a Building Management System (BMS) or Central Control and Monitoring System (CCMS) is installed, metering must be connected to allow real-time profiling and management of energy consumption.

E. All meters must be capable of remote data access and must have data logging capability and complying with DEWA specifications. All meters should be approved by DEWA.

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

503.04 Air Conditioning Metering

For all new buildings other than villas, which are supplied by a central air conditioning source (such as a chiller plant or district cooling), and where cooling energy is delivered individually to several consumers, meters must be fitted to measure and record chilled water supply to air conditioning units and to provide accurate records of consumption:

A. Energy meters designed to measure the supply of chilled water must be installed for each dwelling unit, office, or tenant. The measuring device must measure the water flow and supply and return temperatures to determine the temperature differential and calculate the amount of cooling energy consumed.

B. Where a Building Management System (BMS) or Central Control and Monitoring System (CCMS) is installed, metering must be connected to allow real-time profiling and management of energy consumption.

C. Meters used must be specifically designed for the measurement of chilled water rather than for hot water.

D. All meters must be capable of remote data access and must have data logging capability.

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

F. The meter readings and actual consumption details should only be for demand management and cost allocation purposes.