APPLICABILITY

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

IMPLEMENTATION

This regulation ensures metering infrastructure is in place to allow for data to be obtained and monitored.

Metering strategies should be considered at the design stage to ensure that the requirements of this regulation are met. Energy demand load contribution of each of the end uses must be evaluated to determine the metering strategies.

Sub-meters must be used to measure the energy consumed, based on each major energy-consuming system in the building. A reasonable provision of sub-metering is for major energy consuming system with load of 100kW or greater. Some of the major energy consuming systems (fig. 503.03(1)) in the building include elevators, chillers, HVAC equipment e.g. fans and pumps and sub-distribution boards.

Fig. 503.03(1): Sub-metering for Major Energy Consuming Systems

Additionally, all tenants must install sub-meters, if tariff meter is not installed. These meters will only be used for the demand management and the electricity cost allocation.

The sub-meters must meet the DEWA specifications and should be approved by DEWA. Virtual meters that provide the run hours details are not accepted for compliance with this regulation.

The reporting template must clearly mark the meter reference number, location of the meter, end use monitored details and the monthly meter reading. The meter reading must be recorded by the operator in the building logbook or any such records for a minimum 5 years. This recorded data should be available for DM / DEWA or its representative whenever required for inspection.

Where a Building Management System (BMS) or Central Control and Monitoring System (CCMS) are installed, metering must be connected to allow real-time profiling and management of energy consumption. Data from DMB / CCMS can generate computerised spreadsheet or trends (fig. 503.03(2)), for further analysis.

Accurate energy consumption data would enable the building owner to observe:

- Trends in energy consumption that reflect season, weekly and other operational parameters
- Comparison of current energy consumption with previous levels to evaluate changes in consumption
- Future energy use patterns if type of activity in the building varies