

# CHAPTER 3: COMMISSIONING AND MANAGEMENT

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## 503.05 CENTRAL CONTROL AND MONITORING SYSTEM (CCMS)



### INTENT

To fully control the operation of building systems thereby optimising system performance, resulting in energy savings and occupant's comfort.

### REQUIREMENT

For all new buildings having a cooling load of 1 MW or gross floor area of 5,000 m<sup>2</sup> or greater, must have a central control and monitoring system capable of ensuring that the building's technical systems operate as designed and as required during all operating conditions. The system shall provide full control and monitoring of system operations, apart from diagnostic reporting.

At a minimum, the system must control the chiller plant, heating, ventilation and air conditioning (HVAC) equipment and record energy and water consumption. It shall also monitor and record the performance of these items.

### SIGNIFICANCE

The central control and monitoring (CCMS) system helps building owners and operators to address a variety of operational goals, such as reducing energy consumption, maintenance and life-cycle costs. This will also in turn ensure occupant comfort through systematic monitoring and intelligent operations.

The CCMS also aids to improve productivity and provide healthy and safe working environment for the occupants through effective control of building HVAC system utilising intelligent controllers which can be programmed to carry out wide range of control function based on received inputs.

The effective real-time monitoring and recording of energy and water consumption helps the building operators / owners / tenants to understand the energy / water usage and identify the benchmark consumption which can be utilised to set targets and make decision regarding operating practices.

### APPLICABILITY

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