

102: DOCUMENTATION AND CALCULATION

102.01: ENERGY COMPLIANCE METHOD

There are two compliance routes for energy performance in these regulations. The standard method is referred to as the Elemental Method; the alternative method is referred to as the Performance Method.

- Elemental Method: All buildings must comply with each of these regulations.
- Performance Method: Alternatively, a calculation method may be employed for a building which may not comply with all the elemental requirements of those Regulations listed in Table 102.01 (1).

The Performance Method, using a calculation tool such as dynamic thermal modelling, must compare the annual energy consumption of the proposed building with that of a reference building which meets all the elemental requirements listed in Table 102.01 (1). The reference building must be equal in shape, size and operational patterns to the proposed building. This shall be done as per ASHRAE 90.1 Appendix G, except for the minimum requirements for building envelope, equipment efficiencies and other parameters and conditions that are already set in Al Sa'fat.

Compliance with Al Sa'fat - Dubai Green Building System will be demonstrated, if the annual energy consumption of the proposed building is equal to or lower than the annual energy consumption of the reference building.

Table 102.01(1): List of Regulations to be complied with for Energy Compliance

Al Sa'fat - Dubai Green Building System for Elemental Method of Energy Compliance
304.05 Orientation of Glazed Facades
501.01 Minimum Envelope Performance Requirements
502.01 Energy Efficiency– HVAC Equipment and Systems
502.04 Lighting Power Density - Interior

102.02: WATER COMPLIANCE METHOD

There are two compliance routes for water performance in these regulations. The standard method is referred to as the Elemental Method; the alternative method is referred to as the Performance Method.

- Elemental Method: All buildings must comply with each of these regulations.
- Performance Method: Alternatively, a calculation method may be employed for a building which may not comply with the elemental requirements for water efficient fixtures detailed in *Regulation 601.01*.