10. ELECTRICAL INSTALLATION

10.1 General

10.1.1 All Electrical Installations shall follow and comply with the Service Authority (Electrical) Rules and Regulations for electrical installations, IEE Wiring Regulations, and International Electro technical Commission (IEC) Codes (latest Editions).

10.1.2 The Developer shall provide to the Service Authority (Electrical), the connected load and maximum demand load (in kVA) required for his construction and operation in a format prescribed by Authority. A copy of the Service Authority (Electrical) N.O.C. shall be forwarded to the Authority for their information. The Developer shall also submit to the Authority the following:

a. Electrical Distribution Single Line Diagram.
b. Schematic Diagram showing load intake and metering arrangements.
c. Load Schedules.
d. Electrical rooms and incoming cable routing layouts.
e. General arrangement and dimensional layout of electrical switch room with KWH metering facilities.
f. Cable routes.
g. Wiring layouts.

10.1.3 The Developer shall also provide a detailed list of equipment to be installed, indicating type of equipment/load, voltage, No. of phases, capacity in kW or kVA and applicable overall diversity factor.

10.1.4 The Developer shall take the necessary steps to protect and keep safe any service corridor passing nearby the plot. In case of damage, the Developer shall report immediately to the Authority in concern.

10.1.5 Developers shall make provisions for mains power out lets in the ETS room and in the telecom room in each building to enable connectivity of ETS room equipment to DWC District Cooling Central plants. The consultants shall contact the Service Authority (DWC-DuServe) for actual power requirements.

10.2 Application to the Service Authority (DEWA)

10.2.1 Upon signing a lease for the allocated plot, the Developer shall apply to the Service Authority (DEWA-Electrical) for his power connection and for the installation of his own meter.

10.2.2 The Consultant must apply, prior to commencing any construction works for the following:

a. No Objection Certificate (N.O.C) from the Service Authorities (DM, DEWA).

10.2.3 The Contractor shall submit to the Service Authority (DEWA-Electrical) “Inspection Certificates” in accordance with the Service Authority (DEWA-Electrical) prescribed forms. All installations and equipment installed therein shall be subject to the Service Authority (DEWA-Electrical) inspection, testing and final approval before connecting the electric supply. All relevant documents shall be submitted to DWC Authority after the final approval of Service Authority (DEWA-Electrical).

10.3 Power Supply Connection

10.3.1 The point of supply to the allocated plot shall be decided by the Service Authority (DEWA-Electrical), and shall be made available at one location within the plot/project, unless otherwise approved by the Service Authority (DEWA-Electrical).

10.3.2 Power supply from the Service Authority (DEWA-Electrical) network shall be subject to terms, fees and tariffs issued by the Service Authority (DEWA-Electrical).

10.3.3 Power supply shall be provided at 230/400V, 50Hz, 3-phase 4-wire with separate neutral and protective conductor, where the total connected load does not exceed 400 kW.

10.3.4 In general, if the total connected load exceeds 400 kW, provision shall be made within the plot/building for the Service Authority (DEWA-Electrical) substation based on the Service Authority (DEWA-Electrical) approved details for the proposed substation. In some circumstances a substation may be required even if the total load is less than 400kW.