

3.1.5 Power Factor

Power Factor is to be maintained at not less than 0.95 and any capacitor bank installation required at customer end (at 11kV level) shall be by the customer at his own cost.

3.1.6 Load Characteristics (quality of voltage, harmonics, flickering, dents, etc.)

- The main characteristics of the supply voltage expected at customer load supply terminals shall be in line with DEWA regulations. Customers shall ensure that their equipment can adequately operate in accordance with the supply technical characteristics as per DEWA rules.
- Voltage drop calculation, harmonic study, fault level calculation, etc., to be submitted by the consumer for any dirty load/ private switchgear.
- Installation of special equipment and devices, if required, to maintain the same as per the standards shall be by the consumer at his own cost.

3.1.7 Power Supply Voltage

- Dedicated / shared 132/11kV substation is required for meeting the power supply requirement of any Major Development. Large loads requiring the allocation of several 132/11kV substation plots might require 400/132kV source. The project developer should allocate plots for the required number of substations and associated 132kV and 11kV corridors.
- 11kV shall be the general distribution voltage.

3.1.8 Substation Plot Sizes and Layouts

- 400/132kV substation: 200m x 200m.
- 132/11kV substation: 60m x 50m.
- 11/0.4kV substation: Refer to Distribution Substation Guidelines.
- The standard setting out plan of 400/132kV substation is shown in [Annexure-7.3](#).
- The standard setting out plan of 132/11kV substation is shown in [Annexure-7.4](#).

