.1 General

.1 The University requires that all main service power distribution be provided with owner's digital information metering. The metering equipment must also be provided with Ethernet port for connection to the campus central monitoring system.

.2 The use of meters can be a valuable tool for monitoring energy consumption and well and monitoring abnormalities such as low/high power factor, harmonic distortion and phase imbalance.

.3 The type of digital metering in this section is typically not suitable for achieving the LEED® measurement and verification credit due to cost. For LEED® measurement and verification, the use of DDC system CT's is acceptable.

.4 Digital metering products shall be Power Measurements 7550 ION Digital Metering System for educational buildings and Power Measurements 7330 ION Digital Metering System for residential buildings. These meters shall measure the following as a minimum:

.1 Meter to display true RMS value of: A – 3-phase current, V – L to L or L to N, 3-phase voltage, kW – kilowatts, kVA – kilovolt amperes, KVAR – kilovolt amperes reactive, Pf – power factor, F – frequency, kWd – kilowatt demand, Ad – amperes demand, kWh – kilowatt hours, programmable LED for energy (kWh) pulsing, V_{uax} - auxiliary input to 120 V AC/DC

.2 Record and store the following information in meter memory: V - max/min at 1 second interval, A – max/min at 1 second interval, F – max/min at 1 second interval, kW – max/min at 1 second interval, Pf – max/min (or kVA max/min) at 1 second interval, kWd – at field programmable intervals of 1 minute to 30 minutes; set at 1 minute, Ad – per kWd.

.5 Connection of Ethernet to campus monitoring system will be provided by University forces.