33 70 00 Electrical Utilities

Revision 01/04/2019

Purpose:

The Architect and/or Engineer shall incorporate the Rice specific requirements indicated in this standard's section into their design. The Architect and/or Engineer shall further produce project specifications in line with industry standards that are updated to reflect these Rice specific requirements.

1. **Sources of Electric Utilities**
    a. Campus electrical utilities are distributed at 5KV.
    b. New Building electrical utilities will be fed from the South Plant, Central Plant or Stadium.
    c. The proximity of new buildings to the existing tunnel systems will determine if electrical utilities are fed through tunnels or are buried in duct bank. No overhead power.
    d. Architect/Engineer shall coordinate source location and quantities of electrical utilities with Rice Project Manager prior to 50% Schematic Design.
2. **Utility Quantities to Buildings**
    a. Non-Lab buildings will have one incoming utility
    b. Lab buildings will have two incoming utilities.
3. **Electrical Metering in Buildings**
    a. Power Meters to be compatible with Rice existing power monitoring system, Schneider PME (Power Monitoring Expert)
    b. Typical Meter Types:
        i. ION7650 – used for mains metering where power quality is critical (Typical for labs) Must include optional Ethernet Communication Card Accessory.
        ii. PM8000 – used for mains metering in non-lab/critical buildings.
        iii. PM5560 – used for basic load/energy monitoring.
    c. Integration of electrical meters into Rice PME and/or WonderWare software to be done by Rice.