Section 26 51 13 - Electrical Metering

General

1. Metering of Services: The U of A wishes to meter all permanent and long-term electrical services fed directly from distribution transformers, including the following:

   A. All buildings
   B. Parking Decks
   C. Parking Lots
   D. Area Lighting
   E. Portable buildings serving construction
   F. Temporary construction power

2. Sub-metering may be required for food service venues. The UA Energy Manager shall determine this requirement as requested by the design team.

3. All meters and instrument transformers used for metering of building services shall be revenue class equipment.

Meter Installations

1. Services are normally metered at the building’s power transformer. These meters are to be socket mounted electronic, three element kWh meter mounted on a socket type meter base.

2. Meters shall indicate energy usage in kWh and demand in kW.

3. The meter base is to include test switches. The meter base is to be mounted on the outside of the secondary compartment of the building’s transformer. Locate meter base against front edge of secondary compartment such that a second, future meter base can be added next to it.

4. Meters shall be polyphase, form 9S, CL20, 120-480V, Elster A3RL with integrated Sensus FlexNet module. Battery and MeterCat program must be loaded at the factory. Elster Meters w/ Sensus FlexNet module are available only through HD Supply as the authorized Sensus electric distributor for Alabama. Contact Ken McLain, 205-541-8641 or ken.mclain@hdsupply.com.

Instrument Transformers

1. Instrument transformers are to be located in the transformer’s secondary compartment. Potential transformers (PT’s) are normally not required. Current transformers (CT’s) should be mounted on the secondary bushings.
2. CT's should have a factory standard ratio with the primary sized at approximately \( \frac{1}{2} \) to \( \frac{3}{4} \) of the service entrance capacity.

3. Wiring between the instrument transformers and the meter shall be color-coded so that leads can be easily differentiated. Wiring shall be neatly bundled and supported.

4. Potential leads shall include a fuse block, mounted toward the front right edge of the secondary compartment for accessibility.

**Network Cabling**

Include a 1" conduit between the secondary compartment of the transformer and the building's electrical service room for future installation of network cabling. The conduit should terminate into a wall mounted junction box located in a corner of the room.