Basis of Design

This section applies to the design, installation and integration of metering and monitoring equipment, including: hardware installed in the electrical service and distribution equipment, any required supplemental hardware, equipment and software required for gathering and storing the required data.

Background Information

- The University owns and operates a centralized Energy Monitoring and Management System (EMMS). A centralized server is used to import and store all data collected by the various systems installed at the University. Our Ethernet based Facilities Services network (FacNet) provides a physical path for metering data to a UW managed cloud based server.

Design Criteria:

- Design main building meters and submeters as specified in UW Purchase specification.
- For additional requirements related to the Electrical equipment Supervisory Control and Data Acquisition (SCADA) monitoring, contact the UW High Voltage shop.

Design Evaluation

The following information is required to evaluate the design:

- **Programming**: Statement of design intent including a general description on how the power distribution system will be monitored and metered.
- **Schematic Design Phase**: Describe the overall design concept and scope for the Energy Monitoring and Management System (EMMS). A list of intended monitoring points and the type of metering device desired. A system description and outline specifications.
- **Design Development Phase**: Provide preliminary diagrams showing the distribution of the communications infrastructure. Provide a finalized list of metering and monitoring points and equipment. Draft specifications. A system diagram based on the specified manufacturer (recognizing that that manufacturer may not be the successful bidder).
- **Construction Document Phase**: Provide detailed diagrams, distribution and connection drawings. Provide detailed elevation drawings showing layout of metering equipment in switchboards and other electrical equipment. Complete specifications. The metering system shall be shown on a separate drawing.