

## ***ELECTRICAL DISTRIBUTION SYSTEMS***

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**Compliance:** The design and construction of all electrical distribution systems shall be in complete compliance with the current adopted revision of the *National Electric Code (NEC)* and the *National Electrical Safety Code (ANSI C2)*.

**Abbott Power Plant:** Electricity is distributed to campus from the Main Campus Substation located near Abbott Power Plant, the U of I's cogeneration power plant. A substantial amount of the electrical power distributed is generated by Abbott, however, electric procurement is done on an economic dispatch basis with continuing comparison between the cost of purchasing and generating electricity.

**Distribution System:** The electricity on campus is distributed via an underground distribution system. The campus electrical distribution system includes several distribution centers and load centers, at various voltages. These facilities provide electrical power to buildings or large loads in their respective geographic areas. Extensions or upgrades of the electrical distribution system are accomplished by installing conductors within underground ducts.

**New Service:** Provision of a new electrical service to a facility requires extension of the electrical distribution system to the facility and installation of a transformer / unit substation, including metering, in an indoor transformer room. Any new transformer / unit substation that is required must be provided and is owned, operated, and maintained by the Energy Services Division within F&S.

**Future Loads:** Electrical distribution systems/equipment shall be sized and configured to accommodate future loads.

**Specific Design Information:** Information about the electrical distribution system and/or its extension to serve a new load shall be obtained via a *Utility Program Statement*. This information includes estimated load, system capacity, duct routing, and most cost effective location of utility service. Clarifications and further information are available from the Energy Service Division within F&S.

**Documentation and Submittals:** The AE shall review the *Project Submittal Requirements*.