**Changes to the 2017 NEC of interest to IEEE Transformers Committee**

**Article 450 specifically addresses transformers. There were no significant changes to Art. 450.**

**However, there were changes to other articles that may be of interest to utilities and affect certain operations of those utilities. Briefly, they were:**

**Art 210.17** requirements for electric vehicles relocated to 625.40 which has been revised. A new section was added entitled “Wireless Power Transfer Equipment”

**Art. 210.18(B) expanded**

Branch circuit for electric vehicles has been relocated to Art. 210.17. For 150V or less circuits, GFCI at “other than dwelling units” expanded from 20 A to 50 A

**Art. 230.24(B)(5) New** requirement for 24.5 ft clearance for overhead service conductors over railroad tracks.

**Art. 240.67** A **new** article has been added to require arc-energy reduction for fuses rated 1200 amps or larger. In 2014 code, circuit breakers rated 1200 amps or greater were covered by 240.67. Now, fuses have been added.

**Table 310.15(B)(3)(c) was removed.** This was the temperature adjustment table for wire and cable on rooftops in sunlight. The only adjustment needed now is wire and cable mounted below 7/8 inch above a rooftop. In my opinion, this change was political, not scientific.

**Table 310.15(B)(7)** **revised** to allow and recognize 208/120 services. Had been 240/120 only.

**New Art. 691 Large Scale PV Arrays**

 New Art. 691 covers PV overs 50 kW and larger and not under exclusive utility control

 Result of NFPA Large Scale PV Task Group.

**New Part IV added to Art 705 added, recognizing Microgrid Systems**

 Sometimes called “separately islanded systems” or “stand-alone systems”.

**New Art. 706 Energy Storage Systems added**

2014 NO SEPARATE ARTICLE EXISTED.

Applies to all permanently installed energy storage systems

12 other Standards are referenced

**Art 708.10 (A)( 2)**

 Indicator lights required on CRITICAL outlets where power stays on

**New Art 710 for “Stand Alone Systems” was added**

**New Art 712 was added covering DC Microgrids**

 Includes AC systems powered by DC – AC inverters

 There is some confusion over whether “microgrid” refers to utility wiring and premises. It is not meant to.

There are a number of opportunities to represent IEEE at numerous NEC Panels.

Respecfully,

David Brender, P.E.