

**PSCCC Meeting Minutes
Jan. 11, 2018
Jacksonville, FL USA**

**Power Line Carrier Subcommittee
Chair: Roger Ray**

Quorum of 12 members present with 2 guests (shown below).

After introductions and review of PAR slides and copyright policy, the chair announced quorum was achieved.

Discussed best time for future meetings and suggestion was made to bring up in the PSRC main committee meeting the topic of when is the best time to meet for members of the PSRC who don't want to wait around until Thursday afternoon. This will be especially important when we eventually start working on the IEEE 643 guide and want more utility participation.

UTC is calling utilities with HAM radio operator requests for permission to use 135.7-137.8 kHz frequency band and asking if they have a power line within 1km of the HAM radio operator.

C93.3 Line Trap Standard Update:

Roger Ray took an action item to notify Trench of the new standard.

Discussion then turned the work of the C93.5 working group.

C0: Standard for Requirements for Power Line Carrier Transmitter/Receiver Equipment used to Transfer Discrete Teleprotection Signals C93.5

Chair: Craig Palmer

Vice Chair: Tony Bell

Secretary: Tony Bell

Output: Standard

Draft: 0.3

Established Date: 22-Sept-2017 (PAR approval date)

Completion Date: 31-Dec-2020

C93.5 TX/RX PLC Standard Update:

The following main issues were discussed:

1. Agreed to add Checkback Testing section to the standard. The following should be included:
 - a. Full power and reduced power tests
 - b. Be able to set timed or coded mode.
 - c. Minimum time for transmitter to be ON during a timed test is 3 sec.
 - d. Coded test shall have a minimum of 4 codes (HL, LL tests).
 - e. Ability to know alarms at master and remote ends of the line
 - f. Ability to initiate tests remotely (SCADA)
 - g. Ability to initiate tests from a master or remote
2. Suggestion was made to look at the style guide to make sure rearranging the ratings and test sections together is within guidelines.
3. Ambient temperature range - try to make the same as protective relays. Jeff Brown will check various relay manufacturers to see what their rated operating temperature range is.
4. Table 1 & 3 on **time** for max temperature will be removed.
5. Power Supply Noise Emissions test – Will add a note that a line impedance stabilization network (LISN) is acceptable to use also for testing.

6. Measurement of Amplifier Output Impedance test setup – Add note that generator can be the carrier transmitter or a frequency generator lab equipment.

The attendee list is below.

Members	
Roger Ray	PowerComm Solutions
Craig Palmer	Hubble/RFL
Tony Bell	Ametek/Pulsar
Don Lukach	Ameren
Ian Tullah	Duke Energy
Jim O'Brien	Duke Energy
Addis Kiefl	GA Transmission Co.
Jeff Brown	GA Transmission Co.
Dom Fontana	Eversource
Rafael Garcia	Oncor
Randy Brannen	Georgia Power
Jerry Finley	TVA

Guests	
Ray Fella	PowerComm Solutions
Thanh Tran	TVA