P802.3 D3.1 clauses 136 and 137 ERL-related comment consensus proposal

In clause 136:

1. Completely remove differential RL specifications for transmitters and receivers. Consensus to make ERL normative and remove differential RL specifications Retain common mode RL specifications.
2. Remove / make informative / keep RL specifications for Cable Assembly.
   Straw Poll. ET-1. I support the following (Chicago rules).
   A ERL normative no RL spec
   B ERL normative RL informative
   C ERL normative RL normative
   D ERL informative RL normative (Draft 3.1)
   E ERL deleted. RL normative. (Draft 3.0).

   A 15 B 21 C 0 D 8 E 0

   Add an editor's note that the need for retaining the informative RL specification is under review.
   Straw poll Have editor's note Yes 9 No 10
   Based on this straw poll and the straw poll ET-1 Consensus is that ERL is to be normative and differential RL informative with no editor's note. Common mode RL remains normative.

3. Remove / change (to TBD) SNR_ISI specification.

Replace SNR_ISI with ERL .

Change SNR_ISI pass/fail limit No support for this option.

Consensus. SNR_ISI is to be deleted.

4. For Host Rx and Host Tx consensus for rho_x=0.44
5. For Host Rx Consensus for ERL minimum = 14.5dB with an editor's note that the ERL value is to be confirmed.
6. For Host Tx.
    a. Fixed value. Consensus to go with "b".
    b. Value adjusted by Pmax/Vf. Consensus to use an adjusted value with editor's note that values of equation to be confirmed. Equation to be as on slide 14 of Dudek_3cd_01_0318
7. Consensus to make ERL for cable assemblies minimum 11 dB and rho_x=0.44. Add Editor's note that the value of 11dB is to be confirmed.
8. Change N to 100/300 (choose one) for Tx/Rx ERL calculation. Consensus for N=300.
9. Define N as 1000 for cable assembly ERL calculation delay of cable is 5ns per meter. 3 meter =15ns. We want 30ns is equivalent to approx 1000UI Consensus to use N= 1,000

In clause 137:

1. Consensus is to completely remove differential RL specifications for transmitters and receivers making ERL normative. Add an exception " There are no requirements for differential return loss" to the list on page 251
2. Remove / make informative / keep differential RL specifications for channels
    a. Make ERL normative remove differential RL specification

b. Make ERL normative make differential RL specification informative.

Straw Poll. ET-3 Chicago rules I would support option a 21 option b 10 Based on this straw poll adopt a.

3. Replace SNR_ISI specification with ERL. Consensus to remove SNR_ISI
4. for Tx and Rx ERL rho_x=0.44 Consensus rho_x=0.44
5. Consensus: ERL normative for Tx with minimum 16.1 dB Add editor's note that the value is to be confirmed
6. Consensus: ERL normative for Rx, with minimum 16.1 dB. Add editor's note that the value is to be confirmed
7. Consensus: Make ERL normative for channel, rho_x=0.44. Add editor's note that rho_x value is to be confirmed.
8. Consensus: Make ERL minimum 10dB for channel. Add editor's note that the value is to be confirmed
9. Consensus Change N to 100 for Tx/Rx ERL calculation
10. Consensus Change N to 300 for channel ERL calculation.