Comments on TR42.7.

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- Slide 3, Temperature Rise Data: "m" should be "b" and vice versa. (b should be zero)

- Slide 5, Recommendations for Max Current Carrying Capacity, 3rd bullet: 720mA at PSE voltage of 50V minimum supplies 50V*0.72A – 12.5*0.72A^2=29.52W=~30W for 2P. Since the working assumption is that the max current value per wire is when all wires are conducting then the power over all 4 pairs is 60W and not 50W. Hence the total power over 100 cables in a bundle is 6000W and not 5000W. Please clarify the differences between this calculation to the 5000W result in this slide. See also Slide 6 4th bullet in which you say 30W/60W over 2P/4P which is the correct numbers for 0.72A and 50V at PSE.

- Slide 6, Notes, 1st bullet: Why now the max temperature rise is 12 degrees C and not 10 degree C as discussed earlier? Is the reason was to get 30W over 2P at 45 degree C?

- Slide 6, Notes, 3rd bullet: "The 5000W (TBD) is an estimate for 10 degree C temperature rise in 100 cable bundle". This statement is not clear due to the following:

  a) It was already mentioned in the 1st bullet that max temperature rise is 12 degree C. If the temperature rise is 10 degree C max then the max current is less then 720mA at 45degree C.

  b) It should be 6000Watts under the conditions you have specified. See also 4th bullet in which it was specified 30W/60W over 2P/4P which is the correct numbers for 0.72A and 50V at PSE.

- Slide 6, Notes, 4th bullet: at 720mA which is the max current, the minimum voltage at the load is 50V – 0.72A*12.5 Ohm =41V and not 51V if PD load is DC/DC converter. If you meant that this is the voltage at the PSE side then the voltage is 50V min and not 51V.

- General comment: TR42.7 should not define power delivery capability due to the following reasons:
  - A) Power delivery capability is a redundant and confusing parameter and has no physical meaning in terms of cable parameters.
  - B) The governing parameter is max operating current that limits max permitted temperature rise.
  - C) Power delivery is a function of minimum PSE voltage and max current per wire. Max PSE voltage gives more power and yet temperature rise is not affected..