

# RADIO SOCIETY

of Great Britain

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7th December 2010

M Octavian Popescu  
European Commission - DG Enterprise & Industry  
Unit G4 - Mechanical, Electrical and Telecom Equipment  
BREY 07/318, B-1040 Brussels

Dear Mr Popescu,

## **PLT/PLA DEVICE POLICY**

We are meeting on 16<sup>th</sup> December, and you asked for some background information prior to the meeting. That is the purpose of this letter and its enclosures.

The Radio Society of Great Britain (RSGB) represents the interests of radio amateurs and short wave listeners in the United Kingdom of Great Britain and Northern Ireland. It is a founder member of the International Amateur Radio Union and through that organisation plays an active role in discussions about radio spectrum policy at the World Radio Conferences of the International Telecommunications Union.

For some fifteen years, RSGB has been monitoring the development of the Powerline Telecommunications (PLT) Technology, and its consultants have been active in a number of forums which have been seeking to develop standards which adequately protect authorised radio services from harmful interference from PLT systems.

The RSGB notes that the ETSI-CENELEC Joint Working Group failed to reach agreement on ways of satisfying the Commission's Mandate 313, and CISPR similarly failed to agree on a draft standard for PLT equipment. In both cases the interests of authorised radio services and PLT manufacturers proved impossible to reconcile.

The Commission has now charged CENELEC with producing a standard and appears to be intent on pushing through a standard similar to the discredited CISPR draft, despite the clear evidence that this would not adequately protect radio services.

The RSGB therefore wishes to explore with the Commission some of the background to this strategy, and makes the following points as a basis for these discussions.



Noting that

- a) Harmonised standard EN55022 has, to date, achieved a sensible balance between the need to protect the radio spectrum from harmful interference, and the need to permit reasonable emissions from other devices generating EMI.
  - b) The European Commission has stated on a number of occasions that its policies shall be technology neutral
  - c) Existing levels of emissions from the current range of PLA devices are some 30-40dB (or 1,000-3,000 times) the level of emissions that bring presumption of conformity to the essential requirements of the EMC Directive through EN55022 (*RSGB supplies as an enclosure test from an accredited test house showing this and has already supplied a report from PA Consultants, commissioned by Ofcom, which confirms the threat*)
  - d) That the current draft standard under development in CENELEC TC210/WG11 would continue to permit emissions at the level of current PLA devices (i.e. some 30dB above EN55022). This level of emissions is proven to cause very serious interference to radio communication systems in the vicinity of such devices (*RSGB supplies as an enclosure to this paper a video of tests conducted*)
  - e) That whilst the same current draft standard requires devices to be fitted with dynamic power control and cognitive notching, such mitigation technologies have yet to be proven as effective in a multi-user environment (as will be the environment for most PLAs)
  - f) That the defined cognitive notching requirement (TS102578) is superficial, in that the device appears only to need to show notching capability at 10 or 15 frequencies at any one time
  - g) That the draft standard applies only to PLT devices and therefore is relaxing EN55022 to the benefit of one technology alone
  - h) That the High Frequency spectrum is a valuable and irreplaceable natural resource. The draft standard is limited to the frequency range up to 30 MHz, when there are less sensitive areas of spectrum potentially available for PLT in the 30-45 MHz range, a spectrum that does not possess the valuable long-range communication characteristics of the 2-30 MHz spectrum
- the RSGB seeks clarification on the following aspects of the European Commission's strategy:
- 1) The view that the Commission takes of the High Frequency radio spectrum and its strategic value in the future
  - 2) The way in which the essential requirement of the EMC Directive will be met, when dynamic power control and cognitive notching will only operate in a limited number of installations, thus allowing emissions to continue at 30-40dB (1000-3000 times) higher than EN55022 in other instances, so not providing adequate protection to authorised radio services
  - 3) The principle of developing a standard which requires devices to display mitigating capabilities which will be unlikely to be deployed in real-life in-situ operation
  - 4) The degree to which the strategy is technology neutral. More specifically, is it the Commission's policy to encourage standards which are technology-specific ?

- 5) The belief that coexistence of radio services and PLAs is a viable strategy, rather than to set aside specific spectrum for PLT. In particular, the limiting of the draft standard to frequencies under 30MHz when there seem more suitable areas of spectrum for PLT pollution to be permitted.
- 6) The development of a standard around an immature technology, when the Commission could better be setting the emission limits to encourage proper co-existence between PLT and authorised radio services, thus requiring PLT manufacturers to develop their products to operate at lower emission levels (see the thesis by Schwager at Duisburg-Essen, which predicts that before long PLT will be able to operate at the EN55022 levels - [http://www.ets.uni-duisburg-essen.de/download/public/Schwager\\_Andreas\\_Diss.pdf](http://www.ets.uni-duisburg-essen.de/download/public/Schwager_Andreas_Diss.pdf)).

I look forward to meeting with you and your colleagues on 16<sup>th</sup> December

Yours sincerely

A handwritten signature in black ink, appearing to read 'D. F. Beattie', with a stylized flourish above the name.

**Donald F Beattie B.SC(Eng) ACGI, FIoD, FRSA, Chartered CCIPD**