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Erkki Liikanen
European Commission
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Düsseldorf, 23 June 2004

Dear Sir,

Powerline Communications – ENTR/G/3/TB/mm/D(2003)835613

over time we and other critics of plans to sanction the deployment of interference causing Powerline Communications have come to expect its proponents to continue to make extravagant claims regarding the technology's allegedly superior characteristics and capabilities, even in the face of irrefutable evidence that many such claims are at best overoptimistic and at worst, simply false.

One should perhaps not be too surprised that the PLC industry feels compelled to continue to make such claims. After all, its products have failed to make the desired impact as they continue to occupy a tiny niche in a growing market of competing superior technologies that are gaining ground at an accelerating pace. PLC industry proponents must hope that by simply rehashing the argument, they will be able to win a reprieve long enough to recoup at least some of their investment, whether by availing themselves of taxpayers' funds in the form of research grants (OPERA) or by offsetting losses from the PLC adventure against corporation tax, before the window of opportunity closes. There is scant evidence of PLC projects earning a decent return on capital employed from operating income alone.

However, we are astounded that the Commission, too, feels it must maintain its old line of reasoning regarding the properties and promise of PLC while continuing to play down its serious shortcomings. It appears that you are still revisiting the well-worn and still unsubstantiated *broader economic development* and *level playing field* arguments. But, more worryingly, you once more make implausible statements concerning the technology's interference potential, its evolutionary progress, its similarity with other wire-bound communication technologies and the severity of spectrum "pollution" claimed to exist which the Commission continues to use as an alibi for adding new sources of interference, rather than discharging its responsibilities to do everything to reduce them. Your latest assertion that "on-line services will put pressure on the lower part of the radio spectrum" (without, incidentally, defining "lower") is but a further attempt to rationalise the Commission's unjustifiable efforts to force a technically unfit technology into the market. Moreover, in so doing, the Commission also does not live up to its own claims of maintaining a technology-neutral stance. Its January 2004 letter amendment to Mandate 313, for instance, singles out PLC as the technology to be pushed preferentially.

All this is being done despite the fact that we at the ADDX, along with many other critics of the Commission's policy, have taken issue with and debunked many, if not all, of these claims repeatedly. In our previous representations we pointed out that PLC in its present form can and does cause significant interference to radio services and there is mounting evidence that this is not just a figment of our imagination. There is a clear and strong correlation between the increasing deployment of PLC systems, both of the access and in-house type, and increasing interference reporting as a result of the public's growing awareness of how PLC interference manifests itself.

We had cautioned the Commission about the huge threat that PLC poses to broadcast services, in general and digital broadcast technologies and small signal services, in particular. We need not point to current experience in Mannheim, Germany where broadcast programming is adversely affected by intense PLC interference. Or the ongoing case of a formal complaint against PLC operator Alliant Energy in the United States who has tried unsuccessfully to resolve severe interference to a licenced radio service arising from its commercial PLC operations. Nor do we need to make you aware of the Austrian administration's Linz site visit on 5 April of this year, during which participants were able to experience first-hand the obliteration, apparently by PLC interference, of DRM signals from Deutsche Welle and RTL. We merely need to remind you of Mark Bogers's statements admitting that PLC would cause interference but that the Commission did not care (see our submission to you dated 30 Sept. 2003) as PLC would only be needed for a 'transitional' period of some ten years or so.

You seem to echo that position by asserting that "PLC technology, like any other technology based on copper cable may nevertheless be replaced in the medium to long term". We interpret that statement as acknowledging implicitly that PLC is indeed problematic from an interference standpoint while attempting to paint a rosy picture by falsely characterising this problem as transient. In this connection we also find the Commission's repeated allusions to an allegedly diminished utility of the high frequency radio spectrum misguided. It should be obvious even to the Commission that once lax standards to allow interference from PLC operations are in place the flood gates will open and the radio spectrum will be at risk of being rendered unusable for all but the strongest signals. When that happens the PLC industry, in cahoots with the Commission, will have undone the work of the early radio pioneers and the many scientists and engineers that have followed in their footsteps to progress radio technology for the benefit of all mankind.

It is quite wrong of you to speak of "possible" interference issues and to cast doubt on the legitimacy of current interference reporting. And it is paradoxical for the PLC industry to deny the occurrence of interference from PLC, just because there has been less than diligent follow-up on reported cases by administrations, while at the same time voluntarily approaching the amateur radio community repeatedly with offers to establish "notches" across amateur radio service frequency allocations to ensure "peaceful coexistence". It is worthy of note, by the way, that "notching" is not an infallible technique to eliminate harmful interference as the case of, inter alia, Alliant Energy has shown.

Against this background it is also not legitimate for the Commission to continue to try to create the impression that with the further evolution of PLC systems the interference issue has been resolved. Whether or not levels of interference from 'modern' PLC systems are indeed lower than those of earlier generations is a moot point. It is the absolute, as opposed to the relative, emission levels that are at issue. Given the increasing number of interference cases being reported, emissions even from 'third-generation' PLC systems would still appear to exceed levels that are compatible with, inter alia, the essential requirements of the EMC directive. On the reasonable assumption that the PLC industry has already deployed its most "advanced" products, or intends to do so imminently, one could expect it to be content to

leave existing standards and legislation as they are, rather than continue to expend considerable effort in lobbying the Commission and members states' governments to have them weakened in its favour. In pursuing this course of action the industry (and with it the Commission) exposes itself, incidentally, to the very real prospect of eventually suffering a very embarrassing public relations fiasco.

As regards the claimed similarity of PLC with other wire-bound technologies, we would like to undertake yet another attempt at making the Commission understand that there are important differences between PLC and, say, DSL. We pointed this out when we last wrote to you on 30 September 2003. The significant dissimilarities between the two technologies begin with the physical properties of the network cabling and do not end with the range of radio frequencies applied to the network to transport information, a factor which in itself critically determines radiation levels from the network. Contrary to your assertion, interference levels from such networks do differ hugely and this has been borne out time and again in practice by real, not imaginary, installations. Were this not so, operators of other types of networks, including DSL, would themselves have long ago started lobbying intensely for a relaxation of emission limits. The fact that they saw no need to do so while the PLC industry not only expects interference to radio services to be tolerated, but demands the right to prevent other communication apparatus from operating as intended in order to enable PLC operation, speaks for itself.

This brings us to an interesting point regarding the principle of creating or maintaining the mythical "level playing field" which the Commission so fervently strives to uphold. In our view it would be utterly unfair, indeed wrong, to indirectly punish those network operators that have established and operate their networks fully in line with existing treaties and legislation protecting radio users from harmful interference, by giving preferential treatment to those operators that do not.

We had invited you to take issue with our position on each one of these points when we brought them to your attention in our letter of 30 September 2003. You elected instead to respond with your standard pronouncements on the imagined benefits of PLC without challenging our stance. This led us to conclude that you must have understood and fully accepted our viewpoints. While your recent statements cast some doubt on that interpretation, we hesitate to construe them as deliberate misrepresentations. Rather, it would seem that the standard of briefing you receive from your staff on these important aspects leaves something to be desired. That is perhaps not too surprising. We are reliably informed that the Commission's representative to the most recent meeting of the ETSI/CENELEC JWG, Mr T Brefort, blamed his inability to comprehensively field key questions from delegates and to elucidate the intent of the Commission's letter amendment to Mandate 313 on having missed his afternoon nap. That does indeed go some way towards explaining the Commission's persistent misreading of these important issues and its cavalier approach to the PLC issue in general.

We hope that this letter has cleared up these misunderstandings.

Yours sincerely

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