

Reply To Comments in the NOI for ET Docket 03-104

This Reply to Comments filed in the subject NOI generally addresses Comments filed by proponents of Access Broadband Internet over Power Lines, or Access BPL, and replies to specific comments by some of these entities. As a communications engineer, (Master of Science in Engineering), 40 years professional experience, and as a licensed radio amateur, I do not believe that said proponents have made their case for rapidly moving ahead with Access BPL.

No Comments by these proponents have properly addressed the resulting interference that will render the 1.8 to 80 MHz portion of the spectrum unusable. Since this portion of the spectrum is used by commercial, government, military, amateur and radio astronomy services, the effect on these users, licensed or otherwise, will be devastating.

For instance, The United Power Line Council claims that Access BPL Tests have not generated any interference, nor is there any indication from tests that interference resulted. They therefore claim that no mitigation techniques are appropriate, and that Access BPL should be treated as a Class A Part 15 technique. But there is no indication that evaluation of interference resulting from trials of Access BPL has even been a part of such tests. And Part 15, as written, never envisioned widely distributed radiating devices such as power lines.

Main.net Communications, Ltd., argues that there is only theoretical concern, and that the Amateur Radio Service will not suffer because amateur antennas are mounted outdoors. But these antennas are often in fairly close proximity, e.g. 10 Meters, to power lines.

Southern Linc, et al, argue that buildings will provide shielding that will mitigate interference. Having contacted some 100 countries using an indoor antenna and five (5) Watts of power, it is obvious to me that shielding by buildings is an empty claim. At the same time, they admit that devices and services provided under Part 15 prohibits interference to licensed services, but claims that the developers of Part 15 devices and services are not required to demonstrate that Harmful Interference does not result.

The Power Line Communications Association argues that their members are best placed to provide the Commission with test results and urges that speculative comments seeking to hinder Access BPL deployment be discounted. If these association members are indeed well placed to provide such test results, then where are the results, and why are they not available to ALL affected users?

This writer argues that extensive tests and interference measurements must be conducted with the participation of ALL entities whose services would be affected by Access BPL. Likewise all such parties must agree on standards that will protect them from Harmful Interference. This is a step which the Commission must insist upon before countenancing the widespread deployment of Access BPL. It appears that no proponent of Access BPL has characterized and measured the resulting interference in a meaningful, quantitative manner.

Tests have been conducted that show that the interference due to Access BPL is so severe that the spectrum occupied by such signals is rendered useless. Both the American Radio Relay League and S. Holton, N1NB, have demonstrated this. The latter test was carried out in Briarcliff Manor, NY, where BPL tests were underway. Moreover, at least two industrialized nations have rejected Access BPL because of the unacceptable interference.

Accordingly, the Commission must insist that proponents of Access BPL demonstrate to the satisfaction of all users of the affected portion of the spectrum that Harmful Interference to such licensed users will not result. Standards for Access BPL must be developed to ensure this. The FCC must not be swayed by the self-serving claims of Access BPL proponents. The danger to national security is far too high, as is the cost to existing licensed users of the affected spectrum. Comments provided by several thousand licensed amateurs, other users of the spectrum and many interested entities, show that Access BPL has broad, deep and well-founded opposition which the Commission must address in evaluating Access BPL.

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