The use of power lines to carry broad band internet digital traffic is of great concern to me. I am an amateur radio operator (N0FP) and make use of portions of the HF spectrum expected to be affected by BPL/PLC systems. The ultra broad-band nature of the proposed technology is expected to threaten the effectiveness of spectrum already protected and in constant use, not only by the amateur service, but ship-to-shore, military, and commercial radio services.

The nature of BPL is a high bandwidth digital signals, transmitted point-to-point via transmission lines designed for use at 60Hz. While existing transmission lines have been optimized for conducting power, they are not optimized for conducting RF. As such, the natural shielding of RF afforded by properly configured open parallel lines simply does not work with such awkwardly designed transmission lines. Power transmission lines make sudden twists and turns as they pass through the countryside. Because of this, the natural shielding is disturbed by imbalances in the system, which will radiate RF well beyond accepted limits. This radiation will cause interference to the weak signal work conducted routinely in the HF spectrum.

Current users of HF spectrum must be protected from the intrusion of wide-band noise that will likely dominate the spectrum around PLC installations. Imbalances in the system will allow significant radiation of the RF from the lines. The nature of HF propagation is such that any radiation of these lines will propagate great distances, causing significant interference throughout the countryside, not just in near proximity of the lines carrying the RF.

I am further concerned that interested parties are testing such devices right now. These tests are being conducted in a vacuum. By this I mean that parties with great interest in protecting spectrum (like the ARRL) are not privy to the technical aspects of the new methods, techniques, and equipment. At a minimum, those parties whose opportunity for financial gain is the greatest should be expected to demonstrate to existing users of the spectrum that the PLC system will not interfere. While I do believe it would be possible to roll out a test system that interferes very little, I do not believe it would be possible for this same technology to be rolled out across the country on existing infrastructure without significant interference being introduced. Further, those parties gaining from PLC should be expected to demonstrate how they intend to 'fix' problems as they appear.

Existing utilities have a huge responsibility to maintain "clean" lines, free of needless interference. As anyone in the business will tell, finding noisy circuits on a complex power grid is very difficult. It is my contention that noisy PLC circuits will be even more difficult to locate and repair. The advocates of PLC should be expected to demonstrate how they intend to maintain power grid infrastructure when they do not own the lines they are expected to maintain.

I am following the FCC's approach to PLC with great interest. Without question, I stand opposed to allowing any extensive

installation, and I stand opposed to any extensive testing of the system, until the advocates of PLC can demonstrate 1) the utility of the technology (how effective is PLC?), 2) how they intend to economically implement the technology, 3) how they intend to monitor all aspects of the system to protect current users of HF spectrum from the intrusion of unwanted noise, and 4) how they intend to correct problems with the power grid when they arise.

Thank you