

This comment addresses the proposed deployment of BPL (Broadband over Power Line) systems.

As a career radio frequency design engineer, it is obvious to me that widespread BPL deployment would cause massive degradation of most licensed radio services now operating in the HF (High Frequency) spectrum—and some services would be completely destroyed in the U.S.A.

This expectation follows directly from the fact that power lines at HF frequencies are poor transmission lines, but are quite efficient antennas. BPL lines will therefore radiate massive interference levels (by HF standards), and will themselves be vulnerable to interference from licensed HF transmitters. I am confident that my expectation in this matter is basically the same as any other qualified engineer who considers BPL objectively.

There is abundant evidence of the expected interference problems in BPL field trials around the world. And there are no examples that I know of where BPL is successfully coexisting with licensed, co-located HF radio services. For these reasons, BPL has already been rejected by a number of "HF aware" countries.

The HF radio spectrum is an extremely valuable natural resource with the unique ability to provide direct, world-wide wireless communication. It would be highly irresponsible to allow the destruction of this unique resource simply to provide a redundant and probably unreliable option for internet connections.

I urge the FCC to do the following:

- (1) Provide rigorous protection for the licensed radio services now operating in the HF radio spectrum from unlicensed emitters like BPL—both through appropriate rules and through vigorous enforcement.
- (2) Insist on thorough, objective, and successful field trials—designed to scrutinize interference potential—BEFORE allowing the widespread deployment of any BPL system.

Sincerely,

Edwin W. Senior