

Dear Sirs:

As an active user of the radio spectrum, I am concerned about the prospect of BPL polluting this natural resource by radiating on the open wire electrical transmission lines. I am additionally concerned about the consequences of licensed services, such as amateur radio operators, causing disruption to this proposed service through the course of normal operating activities. While proponents of this technology taut a promise of delivering broadband service to remote customers in rural areas (paragraph 30), I cannot imagine an economic model that would make this practical given the customer densities and the number of active repeater and transformer bypass devices required in these areas. If this were the real goal of BPL, then why are the proposed pilot locations (as covered in the media) all in urban areas with large customer densities? These urban areas already have multiple competing services. This is illustrated in paragraph 20 where parties have stated that power levels beyond those permitted under part 15 would enable utility companies to serve more homes. It has been stated numerous times that BPL would already be able to serve almost every home because they have electrical wires already. Higher power levels will just affect the economic model by lowering the number of repeaters.

Paragraph 22 indicates that this technology will behave as a point source radiator and disagrees that the transmission lines will not be efficient radiators. I would contend that my amateur radio transmitters also look like point source radiators. However, when I connect them to a long piece of unshielded wire suspended above the ground resembling an electrical transmission line, they do indeed radiate quite efficiently.

Paragraph 23 Current Technologies indicates that signal strength reduces rapidly as a radiated signals moves away from the source. I would agree that BPL obviously obeys the same laws of physics for near and far field propagation as all other broadcast signals. However, the signals do propagate in spite of the reduced levels as demonstrated by all other forms of wireless communications and broadcasts.

Paragraph 35 makes a ridiculous claim that since electrical lines already cause interference, amateur operators already orient their antennas to avoid electrical lines. Contrary to this claim, amateur operators orient their directional high gain antennas based on which remote station they are communicating with and according to changing propagation conditions. While many amateur operators would prefer to be in the middle of a large field far from any other electrical device, this is just not practical for most. Many operators have real world space limitations and most locate antennas in proximity to electric lines. If utilities are not capable of addressing current interference problems, then why could we assume they would do any better in resolving problems with technologies like BPL, which they are not even familiar with.

Paragraphs 40 through 43 discuss proposals for addressing interference problems. These proposals are certainly welcome; however, they will not address issues for mobile users. They may

also impair communications during emergencies when delays in turning off devices cannot be tolerated and when conventional communication channels to the utility companies are not available. These procedures should also include very clear disclosures to customers that they are subject interference under part 15 and their service could be affected if the service needs to be turned off to prevent interference.

Sincerely,
Robert Heath