

August 8, 2003

Dear FCC,

The following comments are related to Proceeding #03-104 "Broadband over Power Lines" (BPL).

I spent almost 30 years of my life as an Electronic Design Engineer and Engineering Manager designing Cable TV Equipment trying to keep the equipment from not radiating unwanted signals and noise. Now there are companies thinking that they can inject RF onto a power line (antenna) and not radiate. Can this really be?

Amateur Radio Operator routinely use milliwatts of power in the frequency range of 2 to 60 MHz which BPL will be using and talk to people around the world. The amount of power that BPL will be using far exceeds this amount and will radiate energy around the world. This signal will be in a form of a highly increased noise floor. This noise will make the 2 to 60 MHz frequencies almost useless for anyone that currently has a license to use them (International Broadcast Stations, Ship to Shore, Emergency Communications, the Military, Amateur Radio Operators, etc).

The Power Companies who currently only pass 60 Hz through their wires are known for creating interference in TV Channel 3 -5 and all Amateur Radio and other users of frequencies below 60 MHz due to their poor and old, power poles, transformers and insulators. Every Power Line Company currently has at least one Engineer on staff that is continually busy trying to find and fix these problems. Now put Broadband signals (BPL) on these lines and what will happen is that all these bad connections and parts will generate even more noise because of an effect called detection and mixing. I would expect that from my experience in the Cable TV industry these generated signals (noise) will get high enough to create a problem with the aeronautical frequencies. Cable TV systems are required by the FCC to offset channels that they carry so they do not create a signal that could possibly take down an airplane. Cable TV has to make sure that their frequencies are highly stable. Is not BPL by definition spread all over the spectrum and highly unstable?

This form of Broadband Transmission which is currently being used in very limited applications and is legal must be stopped from getting approval to use even higher power levels which it seems is only required to get through all their poor and old equipment. With all the current ways of getting data to the house (cable, fiber optics, over the air, satellite and telephone lines) adding another transmission media that has so many issues against it must be stopped now.

Sincerely,

Ronald Oberloh

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