

COMMENTS RELATIVE TO FCC NOI 03-104 (BPL)

I am submitting these comments on BPL not only as an FCC licensed Amateur Radio operator, but as a holder of an FCC First Class Radiotelephone license (now called General Radiotelephone), as a professional engineer in the electronics and computer field with nearly five decades of experience, and as an individual living in a "rural" area of the Arkansas Ozarks who is quite active using internet services.

The FCC is charged with the authority to regulate radio frequency emissions. In the past the Commission has done a fairly credible job of doing so. All is not perfect, however, as witness the many cases of interference between legally licensed transmitters of various services and residential telephones, radio receivers, and television receivers. Or the interference I get from my own and neighbors TV sets, computers, and even electric fences. Or the many unresolved cases of interference to radio amateurs or others from non-rule-conforming powerlines.

My hope is that the Commission will very carefully consider the interference potential of the proposed BPL service. It is my opinion, from carefully studying past tests conducted in Europe and elsewhere, there is extremely great potential for the Commission being responsible for pitting neighbor against neighbor, and destroying much of the nation's homeland security communication in the future.

The average user of electronic appliances do not comprehend that they must "cease using" their appliance if it interferes with a licensed radio service. Try, as an individual, going next door to ask your neighbor to turn off his computer/TV/motor because they are interfering with your radio reception. Nor can they understand that they must accept interference to their appliance by a licensed radio transmitter nearby. Again, try explaining the shortcomings of their cheap telephone when your transmissions interfere with it, as they knock on your door.

Try telling the public to shut down all their internet appliances during a national emergency, when the HF band of frequencies will be vital to our survival, so that radio communication can take place. The Commission at that point will be about as effective as they were in enforcing their rules and regulations in the Citizen Band Radio Service.

The electric power industry is apparently one of the big proponents of BPL. Can they have their cake and eat it too? It may be they can, since they have the dollars to back them up. In a recent FCC proceeding, the electric power industry objected to the creation of a new amateur radio band in the VLF region on the basis that even a one-watt signal from an amateur radio station could couple into the power lines and disrupt the power companies PLC control signals. The Commission agreed with this concern, and rejected the petition to create the VLF amateur band. Amateur radio operators are authorized 1500 watts in the proposed BPL operating range of frequencies. This is 1,500 times the power level the power companies said could cause interference to their systems, and not even considering other factors such as directional antennas.

If this concern is real, it does not take a genius to figure out who will be blamed and notified of permanent "quiet hours" after a wide area's internet service is wiped out -- assuming the FCC licensed Amateur Radio Service operator has not been tarred and feathered first by his or her enraged neighbors.

In my situation, I generally operate using quite low power on the HF bands of frequencies, but the proposed BPL brings on another threat to my operation along with the operation of thousands of other licensees: the raising of the noise floor on all usable long distance communication frequencies. This not only has implications for local, regional, and national emergency communications, but especially in my case, I am interested in experimenting with extremely low power communications and methods. (For instance, I have achieved reception of another Amateur Radio Service operator's 50 microwatt signal at a distance of about 900 miles.)

The threat is not only real for Amateur Radio Service operation, but public safety, short-wave listeners, broadcasters, aircraft, business, maritime, military and other governmental services as well. You are hearing from many Amateur Radio Service operators because many of us are more keenly aware of what is in store if BPL is approved.

The Commission is charged with promoting good engineering practice. It is certainly NOT good engineering practice to impose radio frequency transmissions on power lines not designed in the first place to carry r.f., and then expect them not to radiate this r.f. energy to cause interference with Commission licensed services.

The internet and other broadband services are good to have. But I live in a poor, sparsely populated county in the northern Arkansas Ozarks. I have powerlines and telephone lines. I am 14 miles from the nearest town by road. The local independent telephone company is very small, covering a large very rural area and two towns with about 1300 population each. Yet this small telco is able to furnish me with quite good ADSL service at a very reasonable charge per month. Granted, we are not as sparsely populated as some of the western states; however, the number of families having computers are less than many other states. The telco is able to furnish me with this ADSL service because they have invested in optical cables and outlying "nodes" instead of relying on milking all the profits from antiquated central office equipment.

BPL is being promoted as the economic answer to bring broadband service to sparsely populated areas as a "competitive alternative to DSL, cable modems, and other high speed" methods (quoted from FCC NOI). If the area is so sparsely populated that it cannot support economically one of the more technically feasible modes (such as my ADSL from the telco), how does the Commission believe that competition using BPL (and therefore splitting the customer base) will help?

Once something like BPL is approved, the floodgate will be opened and there will be no turning back to the days when the 2 to 80 MHz. frequencies will be useable as they are today. Please consider carefully what you are doing!

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Amateur Radio Service licensee: AE5K
(licensed 50 years)