

COMMENTS ON FCC “ET” DOCKET 03-104

Commissioners;

I am a licensed Amateur Radio operator. The commission has proposed several questions with regard to the Broadband Over Power line (BPL) initiative. Although the initiative could be very convenient to some potential users, it is an unfair economic windfall to the power companies, while posing a **severe** threat to licensed users in the targeted spectrum.

1. *The Power Companies* already have an extremely poor track record with respect to **FCC Part 15** radiation limitations. Depending on which part of the country you may reside, some power companies will not even attempt to fix power line interference clearly caused by their equipment until individual citizens hire attorneys and the FCC has to threaten enforcement action. I have been the recipient of such actions from power companies. Although there are some that are responsive to their Part 15 radiation limitations. The commissioners must recall in very recent history where the power companies forcefully opposed the allocation of 136 khz at extremely low power for Amateur use due to what was characterized as potential interference to their power grid automated controls. It seems quite duplicitous that now the power companies are proposing use of the entire HF and low VHF spectrum for a completely uncontrolled and unlicensed radiation of signals that will in any rational examination cause immediate and definite interference to licensed services. This is clearly not in the public interest!

Overhead power lines are nothing more than antennas. Any amount of energy applied to them **will** radiate RF energy. Any other receiving antenna **will** pick up that radiation within the emission distance from the power lines. In some cases it will be feet from the power lines, and in some cases it will be miles. Any attempt to deny this fact is purely misleading and incorrect. In no way should any significant consideration be given to easing the radiation restrictions in FCC part 15. Diluting the unintentional radiation limitations would once again be severely detrimental to licensed services.

2. The Amateur Radio Service has been recognized by the Department of Homeland Security as a significant communication tool to “first responders” as well as critical follow on communication in the event of another terrorist attack. Federal funds have been provided to further assist with the education and effectiveness of Amateurs during a national emergency. If the commissioners will

recall, after the attacks of September 11th, in many cases the *only* source of communication in Lower Manhattan was Radio Amateurs. There is no way to predict what form any future threat inside of our borders may present. Will it be local, regional, or even far more reaching involving several states? The Amateur service is a continuously evolving technological environment. Amateurs, as licensed spectrum users must be allowed to continue to evolve without significant interference to their licensed activities. In this way, Amateurs will continue to be a well prepared and effective resource for all communities and the Department of Homeland Security.

3. To date, no significant studies have occurred with respect to the adverse affects BPL may have to licensed spectrum users. Adequate time must be provided so that all parties can complete adequate radiation studies before any future decisions be made. The radiation studies must include dense and sparsely populated areas, and power lines that involve not only short runs between BPL coupling capacitors but very long runs as well. Hooking up a “*demo*” BPL system in a very controlled and small area of power lines is **not** conclusive. Any decisions made by the commission without a thorough study is short sighted and contrary to the public interest. At minimum a study should contain the power line companies, representatives from the FCC, potential Broadband service providers, the NTIA, and the American Radio Relay League.

4. There are many other services that have a significant potential to be adversely affected by BPL. In some cases, the affects have the potential to be crippling to other services. The commissioners must always remember that a power line is also an antenna. With that **fact** in mind, so are telephone distribution lines that typically run very close and parallel to power lines, as well as cable TV distribution systems. It is true that many cable systems have converted to fiber optic, however at some point the fiber optic system must be converted to “*hard line*” for distribution to customers. It is where the conversion to hard wire that a potential for interference is strong. Two parallel wires relatively close together **will** electrically couple and readily absorb any radiated energy from the adjacent wire. Even at extremely low power levels, the coupling affect could be so strong that the noise will not only be readily visible and audible, it may potentially shut down the service. Remember, the NTIA publicly applauded the BPL initiative, but at the very same time cautioned the commissioners to protect other services from potential interference.

IN SUMMARY

- BPL creates a significant interference hazard to many licensed services, as well as Amateur Radio.
- Amateur Radio is a significant and extremely valuable asset to not only local government agencies but the Department of Homeland Security as well.
- No thorough and complete study with respect to potential interference from BPL has yet to be completed.
- Current Part 15 limitations should not be relaxed. Under the current restrictions local power lines are already creating significant interference to many licensed services, including Amateur Radio.
- BPL must be limited to very specific channels! It must be only allowed on spectrum where there is the smallest chance of interference to licensed users. BPL should only require a very small number of channels. If they do not interfere, like the power companies contend, then they should only need a very small number of frequencies, since according to the power companies, they should not interfere with their own radiation.

Please consider all aspects of this initiative! The commissioners have a responsibility to consider all aspects of this technology. Do not rush in quickly to make a “*quick fix*” judgement without a proper examination of **all** facts concerning this issue. To do so would not be in the public interest!

Thank you for your time and consideration!

Sincerely;
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