

Dear FCC,

First, I appreciate the Federal Communications Commission (FCC) extending the time for comments on the Engineering and Technology Notice of Inquiry Docket No. 03-104 regarding Carrier Current Systems, including Broadband over Power Line (BPL) Systems to August 20, 2003.

As a licensed amateur radio operator, FCC call sign N5DFW, I am very concerned with the spectrum pollution (interference) associated with the new broadband over power line technology the FCC is considering for approval for use by the power line industry. Additionally, as a degreed Electrical Engineer, I would recommend that thorough engineering studies be done first to evaluate not only the spectrum pollution that BPL implementation will produce, but also the behavior of BPL modems when exposed to natural (i.e. thunderstorms and solar) and manmade (i.e. vehicle engine noise, welding, and radio) emissions. It is quite likely that the current BPL technology itself is susceptible to these various RF sources, which includes transmissions from other existing radio services.

The industry plans to use a form of power line carrier (PLC) technology using existing low and medium-voltage power lines to deliver broadband internet services to homes and businesses. It uses frequencies between 2 MHz and 80 MHz; and ARRL laboratory and field tests have documented the disruptive effects that implementation of this technology will have on the RF spectrum. The HF and low-VHF frequencies that BPL renders effectively unusable are currently in use by the Government (Department of Defense and Homeland Security), law enforcement agencies, amateur radio and commercial businesses.

To appreciate the level of interference, please visit the ARRL web page at [<http://www.arrl.org/news/stories/2003/08/08/2/?nc=1>] and listen to the BPL interference recorded from one of the FCC test sites. To me it sounds like a strong Geiger counter sound jamming the frequency band such that normal signals cannot be received. Contrary to power industry claims, the ARRL tests have confirmed that the current BPL technology will generate major interference to existing services, including amateur radio. The existing power lines were not designed with RF as a consideration, so no shielding exists for these lines and they radiate (and are susceptible to) this energy quite readily. The ARRL President, Mr. Jim Haynie is prepared to provide the FCC with more details. He can be reached at 214-366-9400 or w5jbp@arrl.org.

Regarding the FCC Notice of Inquiry ET Docket No. 03-104, I recommend tightening of the FCC Part 15 requirements and/or standards for power line carrier (PLC) devices to assure they will not cause interference to (or be susceptible from) existing services. The BPL industry needs to be held to the same external/unwanted emission and EMI standards as the computer, cable and DSL industries, in order to eliminate potentially disastrous effects BPL could have on existing devices. In addition, I would appreciate documentation from the FCC that adequate testing has been performed to assure broadband over power line technology will not cause interference to existing services. Hopefully, this testing will be well documented and made public before the technology is approved for use by the power line industry.

I sincerely hope the power line industry discovers a technical solution to the BPL interference issue so we can all enjoy the benefits of having broadband internet to our home via power lines.

FCC support to my comments for consideration will be appreciated.

Regards,

Jere F. McAlister, N5DFW