

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of:

Carrier Current Systems, Including)	
Broadband Over Power Line Systems)	ET Docket No. 03-104
)	
Amendment of Part 15 Regarding New)	
Requirements and Measurement Guidelines)	ET Docket No. 04-37
For Access Broadband Over Power Line)	
Systems)	

To: The Commission

COMMENTS OF KRIS I. MRAZ

3 May, 2004

The following paragraphs answer some of the comments and questions posed by the subject NPRM.

1. "While we must be mindful of harmful interference, we cannot let unsupported claims stand in the way of such an innovation as BPL systems". - **STATEMENT OF COMMISSIONER JONATHAN S. ADELSTEIN.**

What an incredibly naïve statement by one of our commissioners. To assert that the claims of interference are unsupported is indeed living with your head stuck in the sand. The vast amounts of confirmed and reconfirmed evidence presented in hundreds of comments to Docket 03-104 are testament to what BPL will bring.

2. It is assumed that new ham bands will be proposed in the future. Opponents to the allocation of new ham frequencies must not be allowed to use as an excuse to deny the proposition the assertion that the new ham frequencies are not currently blocked and that it would be too expensive to block or that blocking the new frequencies would be a burden on the BPL end user because of reduced throughput.

3. The NPRM is not to decide if BPL is to be allowed (it already is). Its purpose, among others, is to determine how to protect the public from the "helicopter hovering overhead 24 hours a day".

4. If, during the course of investigating an interference complaint, its discovered that there is a design flaw in the BPL system or a component of the BPL system,

the manufacturer must be required to recall and repair/replace *all* affected equipment deployed, not just the equipment at the source of the complaint.

5. A mechanism must be implemented that measures the BPL signal leaked into non-subscriber residences. Upper limits must be determined and set. HF radio frequency signals on in-house wiring would have an adverse affect on radio receivers. The measurement must include any contributions from the head-end equipment as well as nearby subscriber equipment.

6. In my estimation the public has no power when it comes to getting interference complaints resolved. The FCC has been reluctant to get involved, other than writing letters, due to the volume of complaints and expense of pursuing the offenders. Government agencies, the military services, and government-sponsored institutions, on the other hand, should have a much stronger hand if they experience interference. Therefore, I propose that all "public" frequencies be blocked from BPL signals. This included the AM radio band (already blocked), Amateur Radio frequency allocations, VHF television channels and the FM radio band. Any received interference would be to non-public services and therefore more easily resolved.

7 Block all BPL at certain geographic areas like near some military installations. Our military facilities and Homeland Security facilities must be protected from BPL interference.

8. Any changes to the BPL system (i.e., design changes, reconfiguration, etc.) must be re-certified to meet Part 15 compliance. [See part 15 rules to get para. number].

9. On of the major problems facing many Amateur Radio operators is intermodulation. That is, two HF signals on different frequencies mixing to produce a signal on a third frequency. The commonly happens when there is a nearby AM broadcast station producing very high RF field levels. A 50 KW AM broadcast station can mix with the leaking BPL signals and produce intermodulation interference throughout the HF spectrum. Intermodulation interference must be considered when measuring the interference caused by BPL systems at a specific location.

10. Providing BPL broadband service should be open to anyone. That is, it should not be limited to just the power companies that own the distribution lines. Any service provider should be allowed access to the lines just as the telephone industry must allow access to their lines to independent local and long distance telephone service providers. If competition is the desired outcome, as the Commissioners have stated, then this will truly provide competition. And multiple providers should be allowed to cover the same territory.

11. must not facilitate BPL to the detriment of incumbent users of the spectrum.

12. "We therefore would expect that, in practice, many amateurs already orient their antennas to minimize the reception of emissions from nearby electric power lines." (Paragraph 36)

This statement shows a serious lack of understanding of the Amateur Radio Service by the commission. It is the objective of all station design (both amateur and commercial), from low power with a simple dipole, to legal limit power with multiple rotatable stacked yagi antennas, to maximize received signal to noise ratio. To suggest that interference from Part 15 devices and/or powerlines can be eliminated by simply reorienting one's antenna is ludicrous.

13. No additional rules modifications are required to facilitate BPL to insure nationwide broadband coverage. Nationwide broadband is already available. From Direcway (<http://direcway.com>) satellite ISP:

"DIRECWAY is the new solution for everyone who is ready for high-speed Internet access. DIRECWAY satellite technology makes high-speed Internet available to everyone in the 48 contiguous states and Puerto Rico, as long as you have a clear view of the southern sky."

14 Chairman Powell was interviewed by JONATHAN B. COX of the NewsObserver (www.newsobserver.com/front/story/3394894p-3018584c.html):

Q. Amateur radio operators worry that electric companies will interfere with their signals if allowed to deploy high-speed Internet services over power lines. What do you say to them?

A." We've never said we would let it go on and interfere with critical services. The question is whether it does, and to what extent, and what limits can be placed to make sure it doesn't. We've been fully committed to only allowing things within the range of what we're convinced won't create impermissible interference. ...

"Let's say this works, broadband over power lines. Then every person in every building has broadband because of the electrification of this country. There is a plug everywhere. ... We're not going to be easily dissuaded from doing something that has that much potential."

Chairman Powell has one definition of "impermissible interference". The Amateur Radio Community has quite another. This definition is already in the Part 15 rules: No interference is permissible to licensed stations. The FCC must uphold this definition.