

Docket 03-104

Comments to Broadband Over Power Line (BPL) Notice of Inquiry

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NOI Docket 03-104 comments concerning rule changes needed to facilitate Broadband over power lines:

As an active Amateur licensee I see issues that must be dealt with to allow such a service to function reliability and to fulfill the mandate of Part 15 to protect licensed services from destructive interference. Part 15 rules were written to allow such uses while providing protection to licensed services.

Present power line carrier technology is used in limited data rate low duty cycle applications. As a Part 15 technology it has had a good record for not causing interference. The BPL technology has orders of magnitude higher risk of causing destructive interference to licensed services and has a high potential of being destructively interfered with by proper operation of the Amateur service. The environment in which it must function is uncontrolled allowing each installation to have unique performance issues. Additionally, as a consumer service it will be expected to provide a service level equivalent to dedicated line services such as telephone and cable internet. This is not baby monitors and garage door openers, users will expect 100% reliability for the technology. A failure to deliver this level of service due to interference issues would be a political nightmare for the FCC.

All reliable engineering studies have shown significant destructive interference potential for amateurs at present Part 15 radiated signal levels. The proposed emissions are not discrete frequencies but broadband, covering the amateur bands and the source is not a point source but a large area radiator. This will translate to significant numbers of amateurs being unable to meaningfully communicate using the high frequency spectrum unless specific rules for the BPL service are authorized.

I have worked in the RF field and know that the above BPL performance issues could be overcome by normal engineering methods but it is very unlikely that this could be done while meeting the destructive interference requirements of Part 15 unless emission in the amateur bands were reduced orders of magnitude below the present Part 15 limits.

I am sure the FCC believes the amateur service a valuable national asset. Personally, I am involved with Massachusetts Emergency Management Agency. Amateurs are a significant emergency resource for this country but it must be remembered that we do this because we are interested in communications. Each Amateur driven off the bands by this technology is one less asset for the country.

For the amateur service and BPL technology to coexist and prosper actual frequency protection will be required. The reality is that BPL should be a regulated service and allowing it to proceed as a Part 15 because it can fit into this part is a serious error.

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