Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Inquiry Regarding Carrier Current Systems,	)	ET Docket No. 03-104
including Broadband over Power Line Systems	)	
	)	
	)	

COMMENTS ON NOTICE OF INQUIRY
ET 03-104

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Commissioners:

I'm writing to record my reservations about the broadband over power lines (BPL) proposal that is before the Commission. I'm a ham radio operator and radio listener who is always concerned about the effects of changing regulations on the radio spectrum I use. I believe there are technical issues that would not only affect me, and other users of the spectrum, but they may even prevent the deployment of broadband over power lines (BPL).

Some points for the FCC to consider:

1) Power line hardware is not known for its RF shielding effectiveness. Broken insulators on high-tension lines have caused much interference to hams, radio listeners and others. How will this affect BPL?
2) In March 1989, during the last sunspot peak, a solar flare caused a massive power failure in Quebec. The commission is well-aware of the characteristics of the power grid, which for radio purposes is a continent-wide LC network that is uniquely susceptible to fluctuations in the ionosphere such as that which happened in 1989 and is happening today. Can BPL cope?
3) Unlike DSL and cable service, both of these segregated by subscriber, power lines, by design, deliver the same "content" (AC Power), to all homes in a neighborhood. The only way access can be controlled is for the local utility to disconnect service at the house. A naïve AC power modem interface installed at the substation would send its traffic along <u>all</u> power lines in its service area. A hacker neighbor with a modem could read your BPL service. What are BPL advocates doing about that? Security will clearly be of paramount consideration, but in a marketplace that wants profits

yesterday, security is often secondary. The potential of theft of service might even kill BPL.

4) I've already experienced problems with Part 15 devices that cause interference; my DSL modem makes the HF spectrum unusable at my location. I've even noted interference to 146 MHz frequencies that I use in my SKYWARN (severe weather spotter) duties. But this is one modem, and I can always move it or shield it. But in my apartment, thick with power feeds, I cannot avoid BPL.
5) For that matter, what if a BPL service interferes with my DSL modem? It operates in the 15 kHz-2 MHz range, and VDSL modems could operate at a even higher frequency.
6) I'm concerned that the Part 15 limits may need to be revised or even eliminated to accommodate the increased power that will be necessary to overcome problems #1 and #2, and others. Such power into the BPL grid could, and probably would, destroy the RF spectrum for use in almost every other service, including broadcast radio, amateur and emergency services (to say nothing of shortwave).

I urge the FCC not to consider any regulatory changes to accommodate BPL until more tests can be done to quantify the interference potential and evaluate its true effectiveness. Right now, BPL is a nice-to-have technology for most areas, as xDSL services and cable modems are becoming more and more common. Indeed, BPL systems have proved unworkable in Japan and elsewhere, as other commentors have pointed out.

Commissioner Powell sees the FCC as a cheerleader for technology. He, and you, should bear in mind that Mother Nature always has the final word. This is as true for BPL as it is for any other service. Choose wisely.

Regards,

David Moisan