Comments Relating to BPL proposal #04-37 prepared by Robert Monaghan W5VC:

I would like to oppose the proposed BPL implementation on a number of grounds.

The proposed BPL systems will generate burdensome class action lawsuits representing millions of U.S. citizens seeking re-imbursement for losses suffered by BPL's implementation. The value of amateur radio equipment jammed by BPL's interference will certainly be in the billions of dollars, as will the value of millions of shortwave radio receivers, CB radios used by truckers, and so on. FCC action in favor of BPL would open up the U.S. government to such class action lawsuits too (e.g., under the Fifth Amendment "Takings Clause" et. cet.).

Lawsuits are also likely from various industry groups. For example, testing and repair facilities for everything from marine and aircraft navigation systems to wireless receivers will need to be moved into Faraday cages to escape BPL's broad band interference. Even VHF/UHF facilities will need such protection, as most such receivers have intermediate frequency systems in the below 80Mhz range. Military contractors will also need to develop new and expensive shielded facilities for many projects.

While BPL's signals may be transmitted below 80 Mhz, harmonics from poor power line connections acting as diodes will generate harmonics well above these frequencies. Since these radiating wires are routed directly to the vicinity of users and commercial facilities, the potential for intense interference will also be high. Who is going to pay for those expensive facilities modifications? Has the FCC even budgeted for its own facility upgrades and modifications to meet its mandated monitoring and enforcement obligations in the light of high levels of BPL interference in its future?

Tests of sundry BPL technologies by the Japanese Amateur Radio League (Akagi tests..) have observed levels of BPL generated harmful signal interference which would make it impossible for low power or emergency communications signals on HF to be received, with some tests showing over 60 dbUV/m interference levels. This high level of interference (equivalent to S9+ noise levels) would make shortwave operations so problematic as to eliminate this critical area of amateur radio operations.

Our campus emergency operations center relies on amateur radio for its ultimate communications capabilities in a large number of disaster scenarios. We have an amateur radio HF transceiver for our long-distance emergency communications requirements. In the event of an attack against our Internet and telephone communications networks, the lack of an effective amateur radio shortwave communications infrastructure would endanger many lives and potentially billions of dollars in property too. But how can that amateur radio emergency communications infrastructure be there, if we can't even train for emergencies due to the high levels of BPL interference?

We have a number of active amateurs and many students and other University community members who also rely on shortwave radios and broadcasts to get news from home (for foreign students) and external news and views unfiltered by the US media.

These needs to get access to the full range of discussion in the international and national press can't be met if high levels of signal interference renders shortwave listening and operations impossible due to spread spectrum "noise" from BPL drowning out these news sources. With the on-going "merger mania" of US media outlets into the hands of a few owners, the importance of protecting independent sources of news and public policy views becomes even more important.

To the extent that the BPL implementation would reduce or even eliminate shortwave listening for millions of US citizens, the FCC would likely be subject to lawsuits by sundry U.S. shortwave station licensees for the FCC's action in abridging their freedom of speech and of the press. The sundry shortwave stations operated by religious institutions could also make claims against the FCC for abridging the exercise of their religious freedoms too. And sundry groups of US citizens could also make similar claims in their own lawsuits over losing the ability to hear their religious and news programs due to high levels (S9+) of interference from BPL operations.

Finally, by the time it is implemented BPL will face heavy competition from many new as well as current sources. Besides DSL from the telcos and cable (TV) modems, new wireless access services are already obsoleting the need for BPL in urban and suburban areas. Satellite data modems and portals make it possible for remote rural communities and industry facilities to have high speed network access without requiring laying billions of dollars worth of fiber to remote areas. Microsat high speed communications systems such as those proposed by billionaire Bill Gates will be another likely competitor obsoleting BPL networks. So BPL is likely to be a bad financial investment for the power companies as well, resulting in huge losses in an industry which is still reeling from its under-investment in power generation (cf. California and Enron) and distribution (cf. recent Northeast blackout). To the extent that BPL drains investment and resources from solving these real and demonstrated deficiencies in this industry, it is a bad idea and counter to the national interest.

In short, BPL is bad for radio amateurs, bad for shortwave listeners and CB radio and other spectrum users, likely to generate court-clogging volumes of lawsuits from adversely impacted parties, which will likely include not just radio amateurs but also various industry and business as well as religious and media groups. The hidden costs to consumers owning "jammed" radio receivers and industry and government to protect their own systems will be in the billions or tens of billions of dollars. Even more important, the lack of an amateur radio emergency HF communications capability is also likely to cost many human lives as well as billions of dollars in increased losses in emergency situations. And the impact of these emergency communications losses would also be a major failure by the FCC to meet its obligations to support the national security needs of the United States.

The FCC has many obligations to the nation and its citizens to put the burden of proving the lack of interference problems on the industry, via independent laboratory testing and analysis, rather than waiting to discover these issues on the roll-out and implementation

of BPL. Every effort should be made to eliminate these interference problems, and if they can't be eliminated, then BPL should NOT be implemented.

Respectfully submitted,

Robert Monaghan W5VC