

May 2, 2004

COMMENTS ON ET DOCKETS 03-104 AND 04-137 CONCERNING ACCESS  
BROADBAND COMMUNICATION OVER POWER LINES (BPL)

I have just read through some of the comments on file that indicate grave concerns with the interference potential to licensed wireless operations posed by the proposed widespread implementation of BPL. I do not intend to cover all of that ground here but, rather, to offer some complementary observations based on my own experiences.

I have been an Amateur Radio operator for the last 30 years and am employed in Marine Transportation and Construction. In the course of my employment I use terrestrial and satellite wireless communication systems. I have been fortunate in this period, in both services, to have not been troubled by serious radio frequency interference. It is my fervent hope that this state of affairs is able to continue.

From 1996 to 1998 I was a partner in a local Internet Service Provider operation based in and serving my community in Northeast Lower Michigan. The service started out providing 28.8k dialup service. Later, as 56k modems became available, it was upgraded to that standard. The T-1 data line being used as our connection to the Internet was available from one provider only and came at a cost that was about four times the rate charged at that time for similar service in large urban areas in the central and southern parts of the state. I left the operation a few years before it was absorbed by a regional provider. In the last two years I have seen two wireless broadband providers come into the area. High-speed satellite equipment is also being used by a significant number of households. My current Internet activity is as a 56k dialup subscriber achieving an average connection speed of about 48k. As both an Internet user and a wireless licensee I do not see a compelling case for BPL. The few figures I have seen so far on connection speeds and service prices do not justify, in my mind, the potential for disruption to existing licensees. The alternatives that already exist, even in this area, seem much more attractive. If the secondary nature and requirement for Part 15 devices to accept interference from licensed services is properly made known to potential subscribers (as, indeed, it should) I believe that most of them would reach the same conclusion.

It seems, however, that BPL is about to become a fact of life. Given that, there are a few comments I would like to make.

Interference will be an issue. The Southern statement quoted in Par. 22 that "... a BPL signal injection point can appear like a point-source radiator, with the power line having characteristics somewhere between a waveguide and an antenna."... amounts to an admission of this. In practice, power lines are already known to radiate at power frequencies. At HF it is fair to assume that propagation

will be more effective. In addition, even though existing Part 15 devices do not present insurmountable problems, they do present problems, even with their relatively intermittent duty cycles and low data rates.

The adaptive interference mitigation techniques proposed by the Commission in Par. 40 are absolutely necessary as a minimum. In order for them to be effective, though, the Access BPL database proposed in Par. 43 should be one centralized operation. For best results, I would further propose, that each node of the Access BPL transmitting equipment be required to periodically identify itself using a method that can readily be demodulated and displayed by a station suffering interference so as to provide quick and positive identification of the offending node in the same manner and for the same reasons as required of licensed operations. Toll-free telephone and web-based access should be available.

In response to the questions raised in Par. 42, compliance with requirements adopted pursuant to this proceeding should be as soon as possible. Existing systems should also be required to comply with the new rules.

Finally, both the Commission and the BPL industry should adequately publicize the secondary nature of Part 15 devices, as mentioned above, in order that potential end users of this technology may truly make an informed decision on it. Such information should also be made a part of any service agreement forms used in the industry. Considering the significance of this information, minimum font size and placement requirements might be in order. If the marketplace is to decide, let it do so intelligently.

Respectfully submitted,

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