

10 August 2003

Re: NOI 03-104 (Expanded PLC)

To Whom it May Concern

I stand staunchly opposed to the expansion of Power Line Carrier (PLC) in order to allow for development of Broadband over Power Line (BPL) systems, as proposed under the aforementioned docket.

REASON FOR OPPOSITION

My primary reason for opposition to such expansion is due to the negative effect PLC will have on the Amateur Radio Service, which the FCC regulates under Part 97. PLC is designed to transmit broadband information along power lines over several different frequencies on the HF and VHF bands. Many of these frequencies, especially those between 2 and 30 MHz, have been allocated to the Amateur Radio Service on a primary basis under Part 97.

Furthermore, the 11-meter band (27 MHz) has also been allocated to the Citizens' Band Radio Service (CB) on a primary basis under Part 95.4, and is used as an essential tool of interstate commerce by the trucking industry. The 11-meter band is also invaluable as a means of emergency communication to thousands of travelers.

Current regulation of PLC under Part 15.209 allows for PLC to be utilized at frequencies as low as 1.705MHz. I would respectfully point out to the members of the Commission that this is within a few Hertz of the allocation for the AM Broadcast band.

Also, military, as well as numerous civilian agencies also have band allocations within this frequency range.

Finally, 03-104 also seeks approval for expansion of the frequency range allowed to PLC – possibly into the VHF and UHF bands. This also presents a grave risk of significant harmful interference to users of those bands, who include the Amateur Radio Service, the FRS, the GMRS, the FM Broadcast Bands, aircraft bands, business bands...the list goes on.

HAZARDS TO PRIMARY USERS OF THIS SPECTRUM ALLOCATION

In recent tests conducted by engineers for the American Radio Relay League (ARRL), it has been determined that deployment of expanded PLC, as proposed by 03-104, poses significant risk of harmful interference to HF service within the range of 2MHz-30MHz. ARRL evaluation of the potential risk to the Amateur Radio Service has indicated the likelihood of a rise of nearly 35 decibels in noise on the HF bands allocated to the Amateur Radio Service under Part 97. This would be the radio equivalent of holding a conversation in a library, and then suddenly finding yourself dropped into the ambient noise level of a nightclub. It would be impossible to continue that conversation.

While 03-104 would, on the surface, appear not to be harmful to other services within this frequency range, please note that current Part 15.209, under which PLC is regulated, inherently assumes that the regulated device is a point source, i.e., a personal computer, an electric motor, or some other device, which is located at a specific location. PLC, as used for BPL, on the other hand, would inherently be all-pervasive. The United States uses a comprehensive network of overhead and underground power lines for power transmission – it would be everywhere.

As mentioned above, under 15.209, PLC devices are currently allowed to operate on frequencies as low as 1.705MHz. This is within a few Hertz of the upper end of the AM Broadcast band. This poses potential for significant harmful interference to the AM Broadcast band by poorly-tuned equipment, as well.

Finally, Part 15.209 also inherently assumes that that the point source of interference would be confined to a single frequency or small frequency range. However, by its nature, PLC creates broadband interference, and has the potential to interfere not with a discrete frequency (i.e., 3.75MHz), but with an entire radio band (i.e., 80 meters, 30 meters, or 11 meters).

VALUE OF THE AMATEUR RADIO SERVICE

Over its nearly one-hundred-year history, the Amateur Radio Service has provided a valuable service to the American public.

During the course of World War II, the Korean War, and the Vietnam War, licensed radio amateurs volunteered their time to pass radio traffic to and from soldiers and sailors stationed overseas. This service continues even today, as the Military Amateur Radio Service (MARS).

During countless disasters, natural and otherwise, licensed radio amateurs have volunteered their time to handle health and welfare traffic for agencies, such as the Red Cross, when other means of communication were unavailable or otherwise taxed beyond their capacity. One notable example of this was Hurricane Andrew. Another was during the aftermath of 9/11, when licensed radio amateurs worked thousands of man-hours to support relief efforts both at the Pentagon and in Manhattan, until traditional lines of communication could be restored. Based on this, the Department of Homeland Security has deemed the Amateur Radio Service a vital national security resource. A final, notable example of this was during the aftermath of the recent *Columbia* disaster. Licensed radio amateurs provided over five thousand hours of volunteer time and logged tens of thousands of miles on their personal vehicles in support of and to assist with the recovery of debris from the downed shuttle.

However, these are only a few high-profile examples of the valuable service, which the Amateur Radio Service provides. On a daily basis, licensed radio amateurs, who are trained as storm watchers, feed information to the National Weather Service. Licensed radio amateurs assist civilian law enforcement officials by coordinating communication for search-and-rescue efforts. Licensed radio amateurs provide support to civilian organizations, such as the Red Cross.

The ability to provide all of these services is menaced by 03-104.

ALTERNATIVES

PLC is not the only option for providing broadband network connections to areas, to which it is not currently available. There does exist other technology, which is proven, such as DSL and broadband cable. Some private companies, such as DirecTV, provide direct satellite network connections at a reasonable cost to subscribers.

Nor is PLC the only option available to utility companies to get into the market and create a widespread network infrastructure. Utility companies already have right-of-way to bring service to every door in the United States merely by exercising their ability to run broadband cable or fiber along their existing right-of-way, with the consent of their local franchise authorities.

SUMMARY

I do not propose that the FCC blindly strike down the modifications to 15.209, which are proposed by 03-104. Rather, I propose that the FCC evaluate the harm to other, unique radio services, which it is sworn to protect, against the need for yet another means of providing broadband network connectivity in a market, which is already saturated.

Furthermore, I strongly urge the FCC to examine the recent decision to not expand PLC, which was recently made in Japan, and to strongly evaluate the rationale behind that decision, as it considers this issue.

I strongly reiterate my opposition to 03-104, and urge you to decide against it.

Respectfully submitted,

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