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Comments to ET Docket 04-37
 FCC Notice of Proposed Rule Making BPL Proceeding
 BROADBAND OVER POWER LINE

To Federal Communications Commission, Washington D.C. ---- April 27, 2004

Sirs,

My comments below indicate, most strongly, that the Broadband over Power Line Proposal NOT be approved. They are based on the radio frequency interference levels already measured and reported to the FCC from the several United States BPL experimental test areas

The ARRL and other organizations have documented and reported S9+ 30db strength noise levels over the range 1.8 to 80 MHz in the United States BPL test areas. This very high noise level effectively destroys the ability to receive any and all long-range lower strength shortwave communications within the United States where the BPL system would be deployed. The essential radio services allocated in the affected radio spectrum include: maritime ship to shore, long-range aeronautical traffic control, governmental and FEMA services, amateur radio allocations and international broadcasting.

The United States is a party to international agreements governing frequency allocations and uses of the long-range short wave radio spectrum through the International Telecommunications Union in Switzerland. The destruction or impairment of the ability to receive long-range short wave services within the United States is a flagrant unilateral abrogation of our international agreements.

The jamming of short wave International broadcasting services by the Soviet and Chinese Communist regimes should be well remembered. The effective blocking by BPL of the United States citizenry from receiving ANY independent foreign shortwave broadcasts far exceeds any previous jamming efforts by these totalitarian regimes and contravenes our ideals of an open and democratic society.

The technical origins of the inescapable radio interference from any BPL-type service are well understood and grounded in fundamental mathematics, physics and radio engineering.

1) A broad band signal bit consists of an approximately rectangular voltage pulse. The Fourier frequency components necessarily span the very wide shortwave frequency span over which interference is now being observed.

2) The long runs of unshielded power-lines constitute one of the best potential antenna systems ever built. It is INEVITABLE that feeding the data stream signal of the BPL bits into this power-line antenna system will and does cause the multi-directional radiation broadband S9 + 30 db interference level now experienced.

The regulatory radio authorities of at least 2 foreign countries have ceased any BPL services on the basis of the associated radio signal interference experienced.

Of overwhelming importance is the long-term threat that the United States now faces from international terrorism. Likely sabotage of power-grids, water-distribution systems and transportation links are expected. Under these circumstances emergency long-range

point to point short wave communications are an even more essential strategic asset. Without this long-utilised emergency capability asset, in a terrorist-provoked emergency situation, maintaining public order and implementing the required recovery efforts will be severely impeded

Any deliberate impairment of the shortwave services within the United States through the BPL must be correctly judged as woefully misconceived. Deployment of the BPL service will severely degrade the National Defence capability and endanger our Nation's survival

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