

Broadband Over Power Lines (BPL) is a very poor solution to universal Internet access and should not be implemented. It will cause widespread High Frequency (HF) spectrum pollution as preliminary National Telecommunications and Information Administration (NTIA) and American Radio Relay League, Inc. (ARRL) studies have shown.

Amateur Radio Service users utilize sensitive receivers and frequently must be able to receive very weak signals originating thousands of miles away. BPL emissions would obliterate such signals for most of the populated areas of the country once widely deployed.

Power companies should consider running fiber optic cable to provide high speed Internet access. They already have the right-of-ways and poles/conduits to inexpensively deploy such a solution. This has the advantage of allowing huge bandwidths and much larger technical growth potential than BPL and eliminates all spectrum pollution and interference to licensed services concerns.

Wireless broadband is also a much better technology to provide service to rural users with significantly less spectrum pollution and interference concerns than BPL. I recommend that the FCC advocate Wireless Broadband rather than BPL as a solution to providing universal Internet access to rural areas.

If BPL is implemented, I recommend the following:

- Absolute emission limits below the existing average noise floor should be established.

- Automatic adaptive frequency band notch-out and transmission power reduction be required on all BPL devices via receivers co-located with each transmitter that monitor transmissions across the spectrum utilized by the BPL transmitter. Automatic notch-out would cause immediate alleviation of interference to licensed service users upon detection of their transmissions on a particular band. The entire band segment should be notched out for services (e.g. Amateur Radio) whose users typically tune across the band looking for weak signals. Individual frequency notch-out would be inadequate in such scenarios.

- Notification of BPL system startup or significant modification be included with consumers' electric utility bills. This would allow the identification of "mysterious new interference" experienced by licensed service users. BPL proponents claim few to no complaints from their limited implementations. That may simply be because spectrum users were unaware of the BPL system's existence and thus did not consider looking for it as a possible interference source. It is frequently difficult to identify sources of interference without knowing what radiators are in use nearby. Notification of a new possible interference source would be extremely helpful.

- Limit deployment to underserved areas. There is already plenty of competition in urban/suburban areas (cable modem, multiple DSL providers, satellite) and the density of power lines and high probability of interference make spectrum pollution and widespread interference virtually inevitable.

-End-user devices sold should clearly indicate on the outside of the box the potential for interference and that they may have to stop using the device. Lack of such notification has caused extensive problems with other consumer devices that make no mention of potential interference to other devices/services until the box is opened and is usually relegated to small print which is frequently overlooked by consumers (e.g. 2.4 GHz cordless phones and IEEE 802.11b wireless networks). Lack of such notification would be a disservice to non-technical home consumers who would otherwise be totally unaware of the risks at the time of purchase.