



It Seems to Us

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The FCC's Parallel Universe

“In the parallel universe that apparently exists just south of the corner of 12th and D Streets SW, Washington, DC, Broadband over Power Lines (BPL) is an ‘important new technology option for delivery of broadband internet/data services.’ In the real world, BPL is a polluter of the radio spectrum and an expensive failure as a broadband delivery service.”

On October 24, 2011 the Federal Communications Commission released its long-delayed Second Report and Order on rules for Access BPL systems. The 76-page document is rife with evidence that the FCC exists in a parallel universe, divorced from the one inhabited by the rest of us.

It took the FCC 3½ years to complete its response to a remand by the United States Court of Appeals for the District of Columbia Circuit. The remand, ordered after the ARRL went to court to challenge the FCC's flawed rulemaking process, required that “the Commission shall afford a reasonable opportunity for public comment on the unredacted studies” that the Court found the FCC had unlawfully withheld and “provide a reasoned explanation of its choice of an extrapolation factor for Access BPL systems.”

At the time we predicted that “the FCC's technical staff... will remain under heavy pressure to ignore the laws of physics and give preference to wishful thinking once again.” And so it came to pass. The Second Report and Order repeatedly acknowledges that the ARRL's arguments are correct with regard to physics but erroneously claims that “ARRL asserts that there is only one scientifically correct and valid answer for an extrapolation factor.” In fact we argued just the opposite.

In the Second Report and Order the Commission concluded that extrapolation “is far less important than the fact that *harmful interference must be corrected under any circumstances* [emphasis added].” This is a statement that would cause us to stand up and cheer but for one thing: the Commission's actions do not match its words.

On December 29, 2010 the ARRL filed a well-documented complaint of violations by BPL systems operated by IBEC. In the Second Report and Order released *nearly ten months later* the FCC had the nerve to say that this complaint was submitted “recently” and that it “is under investigation at this time.” Can the evidence be any clearer that licensed radio services cannot rely on the FCC to take timely action to correct BPL interference after the fact, and that the only way to deal with BPL interference is to require that BPL systems not radiate at interference-producing levels to begin with?

We now know that in addition to being unable to supply BPL services to customers without violating the FCC's inadequate rules, IBEC had other problems. Never financially viable without grants and loans from the federal government, IBEC apparently ran out of money before it could make more than token installations in its target areas served by rural electric cooperatives. At the end of 2011 IBEC announced that it would close its doors and cease operations in January. Thus IBEC joins the list of BPL operators that were only able to resolve interference by shutting down.

The picture of Access BPL painted by the FCC's Second

Report and Order is of an “important new technology” delivering broadband services to consumers in 125 ZIP codes across the United States while causing but one interference complaint. In fact BPL has left a trail of failed enterprises that have consumed many millions of dollars in the course of demonstrating that the principal product of BPL is interference. The “125 ZIP codes” statistic, which comes from a demonstrably defective industry source, was and is completely at odds with the FCC's own data that show there have never been as many as 6,000 BPL customers nationwide — and with IBEC shutting down, that number now has dropped dramatically.

The course of action available to the ARRL after the release of the Second Report and Order was to file a petition for reconsideration. This was done on December 21. Because petitions for reconsideration are limited to a certain length we focused on the one change that would accomplish the most: making it mandatory for BPL system operators to notch the amateur bands to a level at least 25 dB below that generally allowed between 1.7 and 30 MHz. If the FCC were to take this single step — and if BPL operators were to follow the rules — nearly all interference to amateur stations would be avoided. We would be reasonably satisfied with this outcome and the FCC would no longer have to make believe that ignoring interference complaints is the same as resolving them.

You may wonder why, if BPL has failed in the marketplace, the ARRL continues to worry about it. There are two reasons. First, while it is not a viable medium for delivering broadband service to consumers BPL is still getting some consideration for so-called “smart grid” applications. Second, bad rules tend to outlive the purposes for which they were created. Even if Access BPL disappears completely there is no guarantee that another noxious concept might not later rear its head, with its proponents arguing that the “success” of the BPL rules shows that their devices ought to be allowed to radiate the same way.

The radio spectrum is a precious natural resource. The tiny segment of spectrum in which signals propagate across thousands of miles by virtue of the remarkable properties of the ionosphere is especially precious. The laws of physics being universal, this must be true everywhere — even within the FCC's parallel universe.