



UNITED STATES DEPARTMENT OF COMMERCE
National Telecommunications and
Information Administration
Washington, D.C. 20230

April 27, 2004

The Honorable Michael K. Powell
Chairman
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, DC 20554

RE: *Carrier Current Systems, Including Broadband over Power Lines Systems*, ET Docket No. 03-104, *Amendment of Part 15 regarding new requirements and measurement guidelines for Access Broadband over Power Line Systems*, ET Docket No. 04-37


Dear Chairman Powell:

Enclosed please find the report prepared by the National Telecommunications and Information Administration (NTIA) entitled *Potential Interference from Broadband over Power Line (BPL) Systems to Federal Government Radio Communications at 1.7 - 80 MHz - Phase I Study*.

Working together over the last three years the Federal Communications Commission (Commission) and NTIA have solved some of the most difficult spectrum challenges facing our country. In 2002 we collaborated to authorize ultrawideband technology and identified 90 MHz of spectrum for advanced wireless services. In 2003, we worked with industry and the Department of Defense to double the spectrum available for WiFi-like services in the 5 GHz band. And, later this year we will begin web-based authorization of very high speed fixed services in the 70, 80, and 90 GHz bands.

Now, President Bush has offered us another opportunity to reinforce U.S. innovation leadership. On March 26th, President Bush established the bold goal of universal and affordable broadband access for every American by 2007. Yesterday President Bush provided a roadmap on how we can achieve this vision by, among other things, encouraging the development of new technologies. In this regard, the President called for "technical standards to make possible new broadband technologies, such as the use of high-speed communications directly over powerlines."¹

Timely and successful completion of the Commission's BPL docket will lay the foundation for meeting the President's vision for the availability of competitive, universal, and

¹ President George W. Bush, Remarks at the American Association of Community Colleges Annual Convention, Minneapolis Convention Center, Minneapolis, Minnesota (April 26, 2004) (available at <http://www.whitehouse.gov/news/releases/2004/04/20040426-6.html>).

affordable broadband services by 2007. Responsible technical rules that fully address harmful interference concerns with critical systems are a vital component of that foundation. In meeting this objective our agencies must be technically grounded and tenaciously committed to find solutions that both protect critical systems and to allow the realization of the promise of a third broadband wire into the home.

Under your leadership, the Commission began this process with the release of its Notice of Inquiry and Notice of Proposed Rulemaking on this matter.² The NTIA Report released today, which identifies interference risks to federal radio systems – and approaches to their resolution – is an important next step. Going forward, NTIA’s Phase 2 study will assess the interference risks due to aggregation and ionospheric propagation of interfering signals from BPL systems, refine and apply BPL deployment models, and evaluate the effectiveness of proposed Part 15 measurement techniques.

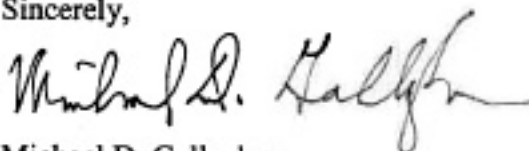
NTIA will work with the Commission to establish a firm technical foundation for responsible deployment of BPL that will protect critical federal communications systems. There are 59,000 federal frequency assignments in the affected bands of spectrum (1.7 to 80 MHz). These encompass multiple applications, including fixed, mobile, radio astronomy, radar, and broadcasting. The value of the commercial opportunity presented by BPL systems may be very high, but the technical rules governing their deployment must address potential harmful interference to critical systems. The Report which analyzes 10 million measurements of BPL systems provides a roadmap to that end.

Our strong record of answering difficult spectrum challenges is an excellent foundation for the work that lies ahead. Our agencies need to rely on technical facts and analysis, rigorous application of the scientific method, reasonable assumptions, recognition of the value of potentially affected critical systems, and a strong demand for solutions. Part of NTIA’s proposed solution is to protect 41 frequencies for the most sensitive and likely most severely affected federal systems. Protecting these frequencies, which represent less than 6 percent of the frequency capacity of BPL systems, will go a long way toward addressing potentially serious interference concerns. Other reasonable mitigation techniques suggested in the NTIA Report include local registration, intelligent power management, interference absorbing filters, frequency selection, signal injection, and the use of a web-based interface for potentially affected parties.

² *Carrier Current Systems, Including Broadband over Power Lines Systems*, ET Docket No. 03-104, Notice of Inquiry, 68 Fed. Reg. 28182 (May 23, 2003); *Carrier Current Systems, Including Broadband over Power Lines Systems*, ET Docket No. 03-104, *Amendment of Part 15 regarding new requirements and measurement guidelines for Access Broadband over Power Line Systems*, ET Docket No. 04-37, Notice of Proposed Rulemaking, 69 Fed. Reg. 12612 (March 17, 2004).

I look forward to continuing to work with you to achieve the responsible implementation of this exciting new technology as we meet the President's goal of making affordable broadband competitively available to all Americans by 2007.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael D. Gallagher". The signature is fluid and cursive, with a long horizontal stroke at the end.

Michael D. Gallagher
Acting Assistant Secretary for
Communications and Information

enclosure

cc: The Honorable Kathleen Q. Abernathy
The Honorable Jonathan S. Adelstein
The Honorable Michael J. Copps
The Honorable Kevin J. Martin
Edward J. Thomas, Chief, Office of Engineering and Technology