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FCC BEGINS INQUIRY REGARDING BROADBAND OVER POWER LINE (BPL)

Washington, DC –As part of its ongoing effort to promote spectrum flexibility and access to broadband services for all Americans, and to encourage multiple platforms for broadband, especially new facilities-based platforms, the FCC today issued a Notice of Inquiry seeking public comment on using existing electrical power lines to provide Internet and broadband services to homes and offices.

Broadband over Power Line (BPL) can provide consumers with the freedom to access broadband services from any room in the house without adding or paying for additional connections by simply plugging a BPL device into an existing electrical outlet. BPL may be able to provide an additional means for "last-mile" delivery of broadband services and may offer a competitive alternative to digital subscriber line (DSL) and cable modem services. This will also enable access to communications services in rural and remote areas of the country. In addition, BPL systems can be used by electric utility companies to more effectively manage their electric power networks.

The inquiry addresses the two types of BPL: Access and In-House. Access BPL uses medium voltage (1,000 to 40,000 volts) power lines to bring Internet and other broadband applications to homes and offices. In-House BPL uses existing electric utility wiring to network computers and printers, as well as smart appliances, within a building. The Commission noted that existing rules for unlicensed *carrier current* systems, which couple radio frequency (RF) energy to the alternating current (AC) electrical wiring for the purpose of communications have been successful. However, these carrier current systems have operated with relatively limited communications capability on frequencies below 2 MHz, over a narrow spectrum bandwidth. Now, the availability of faster chip sets and the development of sophisticated modulation techniques have produced new digital power line designs that use multiple carriers, spread over a wide frequency range (*e.g.*, 2 - 80 MHz) and are capable of high data rates. The Commission further noted that providers of broadband over power line equipment are free to continue to deploy their networks in conformance with existing Part 15 rules, and potential rule changes as a result of this proceeding will address prospective compliance.

The Commission, in this inquiry, seeks information, comment, and technical data on issues concerning Broadband over Power Line, specifically:

- The current state of high speed BPL technology
- The potential interference effects, if any, on authorized spectrum users
- Test results from BPL experimental sites
- The appropriate measurement procedure for testing emission characteristics for all types of carrier current systems
- Changes that may be needed in Part 15 technical rules and the equipment approval process to foster the development of BPL and to ensure that interference is not caused to other services as a result of this technology

Action by the Commission April 23, 2003, by Notice of Inquiry (FCC 03-100). Chairman Powell, Commissioners Abernanthy, Copps, Martin, and Adelstein. Separate statements issued by Chairman Powell, Commissioners Abernathy, Copps, and Adelstein.

ET Docket No. 03-104

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