Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Carrier Current Systems, including Broadband over Power Line 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

COMMENTS OF SPRINT CORPORATION

Sprint Corporation ("Sprint") hereby submits its Comments on the Notice of Proposed Rule Making ("NPRM"), released February 23, 2004 (FCC 04-29) in the above-captioned dockets.

In its NPRM, the Commission is proposing to amend its Part 15 rules "to adopt new requirements and measurement guidelines for a new type of carrier current system that provides access to broadband services using electric utility companies' power lines."[1] NPRM, ¶1. As discussed in its Comments filed July 7, 2003 in response to the Commission's Notice of Inquiry in ET Docket No. 03-104, Sprint supports the deployment of broadband over power line technology and may consider deploying it in the future as an alternative means to access customers in selected areas. However, Sprint, as a provider of PCS, MMDS and local telephone services, urges the Commission to

[1] The Commission distinguishes between "Access BPL" which is provided outside over electric power lines and "In-House BPL" which is operated inside a building. NPRM, ¶3.

ensure that these and all services in the High Frequency bands for licensed services will be protected from Access BPL interference Clearly, licensed service providers would be severely impacted if Access BPL systems interfere with their services. Such interference will degrade the quality of the licensed service and cause customer complaints, as customers will likely assume that the poor service quality is the fault of the licensed service provider. In order to address harmful interference with licensed services, Access BPL systems should not be permitted to operate in the frequency bands used by them.

As an initial matter, the Commission has proposed defining "Access Broadband over powerline (Access BPL)" as "[a] carrier current system that transmits radio frequency energy by conduction over electric power lines owned, operated, or controlled by an electric service provider. The electric power lines may be aerial (overhead) or underground." *Id.*, ¶ 32. It is not clear whether the definition of "an electric service provider" includes all providers of electric service, including all private as well as all public providers. Sprint believes that the definition should be inclusive of privately owned campuses, such as universities and corporate enterprise campuses, and jointly owned cooperative facilities. Clearly, the regulations adopted by the Commission should extend to any entity that provides or controls electric service to end users.

The Commission requests comment "on whether there are entities that plan to own/operate Access BPL over the electric power lines but would not be electrical power providers or a subsidiary of the incumbent electric power provider." *Id.* Sprint anticipates that entities other than the electric power provider might own or operate Access BPL over the electric power lines. Such entities might purchase the rights to own

and/or operate the Access BPL from the electric power company if the power company were not interested in providing the service itself.

In order to mitigate concerns about interference, the Commission is proposing to require that emissions measurements be made at several specified distances from the Access BPL equipment source, and that such measurements be taken parallel to the power line. *Id.*, ¶ 36. Sprint urges the Commission to ensure that the measurement equipment is sensitive enough to pick up the BPL signal at that distance and that the measurement locations be close enough to the source to properly pick up the radiated signal. In addition, measurements on underground systems should be taken not only near the transformer but also near the street lamp pole because the poles may be resonant in the band being used by BPL.

The Commission states that it is "proposing to require that Access BPL systems and devices incorporate capabilities that would allow the operator to modify system performance to mitigate or avoid harmful interference to radio services." *Id.* ¶ 40. Compliance could include the capability to "include or exclude specific operating frequencies or bands." *Id.* Sprint agrees with the Commission that BPL system operators should be able to change from one band to another to avoid harmful interference. The rules adopted by the Commission should encourage manufacturers to make equipment that can switch the signal frequency easily and effectively to modify the system parameters. The Commission also suggests that Access BPL devices should include a "shut-down feature that would deactivate units found to cause harmful interference…" *Id.* ¶ 42. While the Commission may specify requirements for the equipment such as a

"shut-down feature," Sprint anticipates that the most effective way to deal with interference and minimize disruption to customers will be to switch frequency bands.

The Commission seeks comment on what period of time would be appropriate for compliance with its requirements. *Id.* Sprint believes that 18 months to 2 years should be afforded, as this is the typical amount of time provided and needed for the introduction of equipment changes.

The Commission proposes a notification requirement to ensure public access to information about BPL systems and an industry-operated data base including information such as "the location of the installation, the type of modulation used and the frequency bands of operation." *Id.* ¶ 43. Although Sprint understands the need for public information so that interference can be reported to the appropriate operator, it is concerned about the competitive consequences of posting information about a provider's network design in an industry data base. Sprint believes that it would be more efficient and less detrimental to competition to require the local electric power provider to post on its website information about the BPL systems operating over its power lines, including the contact telephone number(s) for reporting interference problems. This treatment of information avoids any expense associated with an industry-operated entity.

As discussed above, Sprint supports the introduction of Access BPL systems but only if the Commission protects licensed services from interference. Providers of licensed services could be materially impacted by harmful interference if Access BPL systems were permitted into their bands. It would be extremely detrimental to such services if customers experiencing the interference from Access BPL systems and not knowing the source of the interference complained to the licensed service providers.

Thus, the Commission should prohibit Access BPL systems from operating in the frequency bands used by licensed service providers.

Respectfully submitted,

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May 3, 2004

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Comments of Sprint Corporation was delivered by electronic mail on this 3rd day of May 2004 to the parties listed below.

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