

**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
)	

To: The Commission

**COMMENTS OF
CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.**

Consolidated Edison Company of New York, Inc. (“Con Edison” or the “Company”) submits these Comments pursuant to the Commission’s *Notice of Proposed Rule Making* in these proceedings.¹

Con Edison supports the goals the Commission seeks to achieve relating to the implementation and use of Access Broadband over Power Line (“Access BPL”) systems and generally supports the proposal the Commission has put forward in the *NPRM*. The Commission’s effort to expand broadband services to consumers and businesses, including underserved areas, is a commendable and attainable objective. Equally important are the potential public utility applications.

¹ *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, *Notice of Proposed Rule Making*, released February 23, 2004, 69 FR 12612, March 17, 2004 (“*NPRM*”).

The Commission's acknowledgment that Access BPL can improve the quality and reliability of the electric power system is welcome. The Commission has taken a pragmatic view of the potential value of Access BPL systems versus the potential for interference thereby assisting in the rapid development and deployment of Access BPL systems while maintaining protections for existing licensed users. There are, however, a few key areas in the NPRM where Con Edison's experience can assist in the development of Access BPL regulations that do not restrict electric utility applications. Accordingly, these comments will be limited to those areas of vital concern that the Company believes require clarification or modification before the final rules are adopted, as follows.

- In light of vital electric utility services that may be utilizing Access BPL service, the Commission should modify or clarify the proposed operational requirement to "cease" Access BPL operations when harmful interference is caused to licensed services.
- The Commission should modify or clarify that recommended shut-down features required on Access BPL devices are a last resort and not the first response to interference problems.

I. INTRODUCTION

Con Edison is one of the largest investor owned utilities serving over 3 million electric, gas and steam customers in New York City and Westchester County, New York. The Company is currently involved in a demonstration project utilizing Access BPL technology in Briarcliff Manor, Westchester County, New York. Ambient Corporation ("Ambient") provides the proprietary technology utilized in the demonstration project and Earthlink provides the Internet access and connections. The demonstration program currently serves two Con Edison employees and the Town of Ossining Police Department.

In addition to the demonstration project for homes, businesses and governmental authorities, Con Edison is actively evaluating BPL technology for the purpose of its power line carrier (“PLC”) systems, energy management, power outage notification, automated meter reading and other utility applications. Aside from providing additional competition in the offering of broadband services to the American home and bringing Internet and high-speed broadband access to rural and underserved areas, Con Edison believes that Access BPL has tremendous potential to provide intelligent networking capabilities in urban areas as well that can improve reliability while reducing customer costs and provide real time monitoring systems to create a more secure electric infrastructure.

Although Con Edison is committed, financially and logistically, to further exploring the development and deployment of Access BPL technologies for home, business, governmental and utility uses, the Commission’s proposed operational requirements can potentially undermine the applicability of Access BPL for utility services. That is, the large investment of resources and effort in Access BPL technology must be supported by cooperative efforts to avoid interference with licensed users rather than the Commission mandating a strict and potentially harmful cessation of operations. Con Edison believes that the operational requirements should be clarified or modified to ensure operational compatibility.

II. DISCUSSION

A. Access BPL Systems

The *NPRM* states that Access BPL would “operate under our Part 15 non-interference conditions” and that “operations must cease if harmful interference to

licensed services is caused.”² Con Edison requests that this requirement be clarified to clearly indicate that the adjustment of operations is a permissible method to avoid or mitigate harmful interference and that cessation of operations is a last resort only if remediation of interference by adjustment of operations is unsuccessful. This clarification is particularly important, as Access BPL facilities will be providing vital electric utility PLC system services in addition to commercial and home services.

The clarification requested appears to be consistent with present regulations. Section 15.5(c) of the Commission’s Rules, the provision generally covering non-licensed operations, requires interfering operations to cease upon notification by a Commission representative.³ However, that provision is qualified when applied to PLC systems. Thus, although PLC systems must operate on a non-interference basis in accordance with Rules Section 15.5(c), the electric power utility can discontinue use *or adjust its power line carrier operation, as required, to remedy the harmful interference* as an alternative to discontinuing use.⁴ This provision, however, is currently limited to systems operated by utilities for general supervision of the power system and does not apply to electric lines that connect a distribution substation to a customer or to house wiring.⁵ Con Edison believes that the Commission should affirmatively grant similar treatment to PLC systems operating on utility distribution and customer facilities. Such comparable treatment is essential if the Commission desires to encourage the investment that will be necessary in establishing Access BPL systems. Thus, the Commission should

² *NPRM* at ¶39.

³ *See* 47 C.F.R. § 15.5(c).

⁴ *See* 47 C.F.R. § 15.113(b).

⁵ *See* 47 C.F.R. §15.113(f).

create a regulatory framework where Access BPL systems that support PLC would develop more rapidly and with more certainty.

Access BPL systems provide a potential mechanism for electric utilities to apply PLC monitoring systems to every aspect of their electric delivery service and not only to large installations and transmission facilities. Systems that currently protect large distribution networks could be expanded so that communities, neighborhoods and individual homes would receive more constant and predictable electric service than they currently receive. The value of this type of reliability to individual consumers is immeasurable. However, electric utilities cannot be expected to invest substantial resources in Access BPL systems if the protections they provide would be simply “shut down” in the event of harmful interference without consideration of other mitigation and remediation measures.

When evaluating the potential for harmful interference to licensed users, it is important to recognize two factors. The first is that the interference is unintentional. Utilities and other providers want to take advantage of the technological advances provided by Access BPL systems. As such, Con Edison agrees that “Access BPL providers would have a strong incentive to exercise the utmost caution in installing their systems to avoid harmful interference and ensure uninterrupted service to their customers.”⁶ Con Edison also confirms the Commission’s belief that because BPL systems may also be utilized to control and monitor the electrical system, Access BPL

⁶ *NPRM* at ¶39

systems will be “managed on a more controlled basis as compared to other typical Part 15 operations.”⁷

Second, the Commission has already taken important measures and provided substantial protections for existing licensed users. For example, the Commission proposes to require Access BPL systems and devices to have the ability for operators to modify system performance to mitigate or avoid harmful interference, to reduce power levels on a dynamic or remote controlled basis and to include or exclude specific operating frequencies or bands.⁸ These protections are appropriate and consistent with the concept that Access BPL systems can be “adjusted” to remedy harmful interference. They appear to evidence an acknowledgement by the Commission that there is an alternative to cessation of operations in the event such operations cause harmful interference. Con Edison agrees with the proposed requirement that Access BPL systems include these interference-remediation capabilities but believes that clarification from the Commission is required to the effect that cessation of operations would be required only in the event that reasonable efforts to eliminate or mitigate harmful interference fail.

Along these lines, Con Edison is concerned with the requirement that Access BPL facilities incorporate a shut-down feature that would deactivate units found to cause harmful interference.⁹ The Commission notes that most Access BPL devices already possess this capability. As such, Con Edison does not object to the incorporation of shut-down features in Access BPL devices. The Company does, however, object to any

⁷ *Id.*

⁸ *NPRM* at ¶40

⁹ *NPRM* at ¶42

implication that the “speedy implementation of mitigation measures” can only occur with the shut-down of Access BPL facilities.

As indicated, the Commission appears to agree with the concept that Access BPL systems can be adjusted by requiring the incorporation of devices to mitigate and avoid interference problems. However, the requirement that “operations must cease” may cause confusion relating to possible mitigation measures. Con Edison believes that the shut-down of Access BPL systems should be a last resort. Mitigation and adjustment must come first so as not to unnecessarily interfere with the safe and adequate provision of electric utility services. In order for electric utilities to have the necessary comfort level to invest resources in Access BPL technology, there must be assurances that the services will not be subject to possibly onerous regulations requiring that operations “cease” if the Access BPL system causes interference.

Accordingly, Con Edison requests that the proposed Section 15.109(f) of the Commission’s Rules (47 C.F.R. § 15.109(f)) be modified to provide the clarification requested, consistent with Rules Section 15.113(b).¹⁰ Thus, proposed Rules Section 15.109(f) should be modified to read as follows:

(f) Access BPL systems shall incorporate adaptive interference mitigation techniques such as dynamic or remote reduction in power and adjustment in operating frequencies, in order for Access BPL installations to avoid site-specific, localized use of the same spectrum by licensed services. Access BPL systems shall incorporate a shut-down feature to deactivate units if necessary to avoid causing harmful interference. If harmful interference occurs, the Access BPL system operator shall adjust its operating parameters or discontinue use.

¹⁰ *NPRM* at Appendix B

B. Mission Essential Voluntary Assets

The Commission cites the comments of PowerWAN, Inc. on the *Notice of Inquiry* in these proceedings regarding the Mission Essential Voluntary Assets (“MEVA”) guidelines and their requirement that utilities be responsible for ensuring secure infrastructure power for federal facilities, including military bases and state, city and local government.¹¹ As evidenced by the involvement of the Town of Ossining Police Department in the Con Edison demonstration project, governmental authorities will be interested and will use Access BPL technology. As the number and types of users of Access BPL technology increase, the Commission must consider the impact of utilities “ceasing operations” on these entities as well. The initial mitigation measures proposed in the *NPRM* and the ability to “adjust” operations as in Con Edison’s suggested modification to the proposed Rules Section 15.109(f) provides a fair balance between the needs of current licensed users and Access BPL operators.

III. CONCLUSION

The Commission is correct that Access BPL offers the promise of a new method of delivery of broadband services to residential, institutional and commercial users, that it would allow electric utilities to improve the safety and efficiency of the electric power distribution system and that it furthers our national homeland security by protecting a vital element of the U.S. critical infrastructure.¹² The Commission is also correct to

¹¹ *NPRM* at ¶13

¹² *NPRM* at ¶30

recognize the potential for harmful interference from Access BPL systems on exiting licensed radio users.¹³

In crafting the proposals in the *NPRM*, the Commission has, for the most part, balanced the needs and concerns of all the interested parties. Con Edison requests that the Commission clarify and/or modify its proposals as detailed in these Comments so that Access BPL can be developed and implemented rapidly and with certainty.

Respectfully submitted,

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¹³ *NPRM* at ¶31