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

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

Pursuant to Section 1.415 of the Commission's Rules, 47 C.F.R. § 1.415, Consolidated Edison Company of New York, Inc. ("Con Edison" or the "Company") submits these Reply Comments in response to one aspect of the June 4, 2004 *Comments of the National Telecommunications and Information Administration* ("NTIA") in these proceedings.[1]

Con Edison concurs with the NTIA that Access Broadband over Power Line technology ("Access BPL") has the potential to provide improved reliability of the electrical power distribution system and that such a reliability enhancement to critical infrastructure will greatly benefit individuals, businesses and the government regardless of whether they subscribe to Access BPL (*NTIA Comments* at 4-5). These comments are

[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*").

consistent with Con Edison's May 3, 2004 Comments in these proceedings and are also consistent with the Commission's acknowledgment that Access BPL can improve the quality and reliability of the electric power system.

The NTIA, however, places great emphasis on a reduction in "strong power line noise" as a basic technical requirement necessary for acceptable performance of BPL systems (*NTIA Comments* at 5). Until additional information is available and such reductions can be demonstrated to be necessary, feasible and in the public interest, the Commission should not require some hypothetical reduction in power line noise as a condition precedent to implementation of the Commission's BPL proposals.

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 with its Power Line Carrier system ("PLC") in Briarcliff Manor, Westchester County, New York. Ambient Corporation ("Ambient") provides the proprietary technology utilized in the demonstration project.

The Con Edison demonstration project has recently become the recipient of a funding grant from the New York State Energy Research and Development Authority ("NYSERDA"). The benefits and enhanced monitoring capabilities to be explored in this demonstration project will include:

- Indication of general circuit health for improved asset management
- Information on power quality events on the monitored circuits
- Enhanced outage management and response

Of necessity, this project will also study and explore the interaction between the day-to-day operation of Con Edison's electric delivery infrastructure and the needs and requirements of the BPL technology used for utility applications.

II. DISCUSSION

NTIA contends that the deployment of Access BPL will increase the likelihood that problematic power line noise will be diagnosed and repaired (*NTIA Comments* at 5). NTIA further indicates that Access BPL deployment may eventually result in the "substitution" of Access BPL emissions for the strong, much wider-bandwidth power line noise emissions that can cause interference to radiocommunications (*NTIA Comments* at 5-6).

While the elimination of any unintended interference from the normal operation of electric utility transmission and distribution systems is certainly a desired goal, there is insufficient information to demonstrate that such goal is presently achievable by itself. In addition, there is insufficient information and experience with Access BPL systems to adequately determine what power line noise is "strong" and/or "problematic" and not simply within the normal operating parameters of the electric system, or what types of power line noise are simply beyond the control of the electric utility.

There are several broad areas that electric utilities and Access BPL providers must be allowed to study and explore before a reduction in the noise levels on the delivery infrastructure of electric utilities should be mandated as part of the rules governing the operation of Access BPL systems.

Actual Interference

As discussed throughout these proceedings, Access BPL technology is in its infancy and there is no certainty that existing power line noise will combine with the Access BPL systems to cause any unintended interference with existing authorized uses of the RF spectrum. Until such time as actual interference is indicated, the FCC should avoid imposing unnecessarily restrictive requirements on Access BPL providers and electric utility infrastructure owners.

Statutory Requirements

Federal and State statutory obligations generally require utilities to utilize an infrastructure that provides safe and adequate electric service to customers. Equipment that meets these statutory requirements, however, may not necessarily be the optimal equipment for Access BPL systems, thereby requiring alterations in the operation of the Access BPL parameters. While the NTIA's goal of reducing power line noise is commendable, the actual implementation of such a goal could interfere with an electric utility's statutory obligations concerning the delivery of electric service, service restoration rules and the safety of the electric system, among other things.

Cost Implications

Without actual experience to consider the possible conflicts between Access BPL systems and power line delivery systems, it is difficult to quantify the cost implications of any proposed reduction in power line noise. Changes or modifications to reduce unintended power line noise, if even possible, may be significantly cost prohibitive so as to preclude the widespread and rapid deployment of Access BPL technology. For

example, an inexpensive modification to one piece of electrical infrastructure could quickly become cost prohibitive if required to be implemented system wide in a utility's service territory. There is also no indication that modifications that may reduce power line noise will in any way improve the delivery of the core business product utilizing the infrastructure – namely, the electricity.

Sources of Noise/Interference

Certain sources of noise on an electric utility power line are beyond the control of the utility. For example, certain devices, machinery and/or motors can feed back into the electric grid thereby causing intermodulation products and other noise. Neither the electric infrastructure owner nor the Access BPL provider has the ability to control these natural phenomena or predict when they may occur. As such, maximum operational flexibility in the operating parameters of the Access BPL system is a necessity.

III. CONCLUSION

The NTIA is correct that Access BPL offers the promise of improved electrical power distribution systems and a concurrent reliability enhancement to critical infrastructure. Con Edison and the Commission have also acknowledged this extremely important benefit of Access BPL technology.

To date, in crafting the proposals included in the NPRM, the Commission has balanced the needs and concerns of all the interested parties. Access BPL providers and electric infrastructure owners need time to adequately explore and address the types of issues raised by NTIA without unnecessarily restrictive regulation. The Con Edison/Ambient demonstration project, partially funded by NYSERDA, is the type of project that can and will provide real experience as utility BPL applications interact with

the electric grid. Even further information will become available when commercial Access BPL providers have the opportunity to analyze the interaction with their equipment under commercial conditions.

Accordingly, Con Edison requests that the Commission not burden electric infrastructure owners and Access BPL providers with any requirements concerning power line noise levels so that Access BPL can be developed and implemented rapidly and with certainty.

Respectfully submitted,

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