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March 13, 2006

Honorable Jaclyn A. Brilling Secretary State of New York **Public Service Commission** Three Empire State Plaza, 19th Floor Albany, New York 12223-1350

Re: CASE 06-M-0043 - Proceeding on Motion of the Commission to Examine Issues Related to the Deployment of Broadband over Power Line Technologies: Comments of Central Hudson Gas & Electric Corporation

Dear Secretary Brilling:

Commercialization of BPL technologies, as an additional source of broadband information to consumers in competition with similar services offered over cable, telephone, cellular, or other wireless systems, could offer significant benefits to consumers. In addition, there are applications for BPL, such as outage notification, AMR, customer demand management, and real time telemetry and equipment monitoring in the distribution system, which have the potential to provide significant benefits to electric utility customers through improved electric utility delivery services.

In recognition of these potential benefits to consumers, Central Hudson Gas & Electric Corporation ("Central Hudson") began an evaluation of BPL technologies in late 2004. Activities undertaken by Central Hudson included participation in industry conferences and visits to utility locations at which BPL was being deployed. As a result of knowledge gained in these efforts, the following comments are offered on behalf of Central Hudson in response to the Commission's January 25, 2006 Order Initiating Proceeding and Inviting Comments.

Central Hudson supports the potential additional use of its electrical facilities to provide broadband information services, as long as (i) the reliability of utility facilities is not compromised, (ii) the BPL service provider entities making use of those facilities compensate the utility for any costs and risks (e.g., increased outages) imposed on the utility, and, (iii) the BPL service provider entities make some appropriate contribution to the fixed costs of the electrical system they utilize. In addition, the Commission should not foreclose utilities from capturing the benefits of utility application of BPL, for purposes of improving electric utility delivery services.

## Electric System Reliability

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Central Hudson believes that its electrical facilities, and those of the other electric utilities in the State, have been built to serve the important function of reliably delivering electricity to customers. To protect the most important function of the electric infrastructure, Central Hudson recommends that the Commission explicitly acknowledge that the reliability of the New York State electric system is the paramount policy principle and objective, and will not be compromised by such BPL policies as the Commission may adopt.

Safety and reliability can be impacted during the installation activities and, longer term, by the reliability of the BPL equipment itself. During installation, service interruption could result, for example, from outages required to accomplish BPL installations, errors resulting from the installation activity, or temporary reconfigurations of circuit protection needed to facilitate the installation. Longer term impacts resulting from failures of the BPL equipment itself are an additional potential source of impacts on the utility and its customers. These have, on occasion, already been observed, as Central Hudson saw during its field visit to Duke Power in 2005. Failures of the couplers used in Duke's pilot program resulted in distribution outages. It also appeared that the support received from the vendor was viewed by Duke as having been inadequate, resulting in Duke removing the equipment from their lines and postponing their rollout of the technology. The presence of BPL equipment could also extend the times required to accomplish maintenance and restoration, and increase utility operating costs.

The operational needs of the electric utility must take precedence over the commercial desires of BPL providers. For example, utilities routinely reconfigure circuits to gain efficiencies (e.g., load balancing), install distribution automation schemes that automatically switch customers from one circuit to another, perform scheduled maintenance involving switching customers from one circuit to another, or incur unscheduled outages. In any of these circumstances, BPL services to particular consumers may be interrupted. In addition, any given BPL provider may not have extended its facilities to all circuits owned by a given utility. As customers are switched from one circuit to another for any of the legitimate utility reasons described above, the services provided by the BPL provider may be interrupted. The BPL providers should be made fully aware of these potential system impacts on their ability to provide service under these circumstances.

## Safety and Operational Standards and Guidelines

Central Hudson recommends that the Commission adopt standards for application of BPL technologies in New York. The standards should include equipment manufacture and testing, standards for equipment installation, and qualifications of workers installing and maintaining equipment.

It is assumed that all BPL installations will be required to follow the FCC regulations regarding interference per FCC Part 15 rules. Additionally, appropriate manufacturing and equipment testing standards through the various standards committees including ANSI

(specifically P.1775), IEEE and UL must be established prior to deployment, and adhered to thereafter. The standards for the manufacture and testing of the equipment should be developed in consultation with interested parties, including utilities and equipment manufacturers.

Regarding installation, there is currently an ongoing IEEE work group developing a BPL attachment standard, using the NESC as its primary source. The draft standard, IEEE P. 1675 should provide the basis for these requirements. Specifically, these standards must address all installation-related issues with BPL equipment. Appropriate inclusion of clearance requirements of the particular BPL technology must adhere with existing NESC requirements, or changes to the NESC must be made consistent with the equipment design and installation and system requirements.

All utility make ready work required for the installation of these facilities will be completed by the utility, or by properly trained contractors working for it. BPL equipment on poles and wires must be installed and maintained only by qualified personnel. This work could either be performed by the utility at a cost-based rate for the BPL service provider, or by qualified workers working for the BPL provider.

Regarding interference mitigation, the BPL provider should have the responsibility of working with the customer for any BPL-caused interference, whether or not the customer having the interference issue is a BPL customer.

Pending adoption of standards, the Commission should not foreclose utility implementation of pilot programs that are designed to produce improved electric delivery services (and gain experience with BPL implementation).

## **Business Model Structural Considerations**

As noted above, Central Hudson's primary interests are that reliability not be compromised, that the Commission assure that the BPL providers not impose uncompensated costs or risks on electric utilities and that BPL providers pay some appropriate contribution to the fixed costs of the electric system. Central Hudson does not take a position at this time concerning any Commission approval of any particular business model(s) for BPL service providers.

Central Hudson requests that the Commission provide no cost licenses to the electric utilities, for the specific purpose of enhancing the delivery of electric utility services, as part of the specification of whatever business model or models the Commission eventually approves. This request assumes that such utility uses would utilize only limited portions of the available BPL bandwidth; if commercially significant portions of the bandwidth were to be consumed by the utility, other commercial arrangements may become appropriate.

Moreover the Commission should consider the effects on competing broadband service providers of the business models it considers for adoption, to avoid creating preferential treatment.

Central Hudson is concerned that the Commission's initial position, as set forth in the January 25, 2006 Order, appears to have the effect of precluding utilities from pursuing BPL investment pending unspecified future developments. Under that approach, if third party BPL developers do not appear and provide BPL services, utilities may miss the opportunity to attain the potential benefits of the applications of BPL technology that relate directly to improving customer service and quality, potentially reducing costs. It is in the interest of the utilities' customers that utilities not be entirely foreclosed from implementing communication channel options, including BPL, to the extent that those technologies would produce economically advantageous enhanced electric utility services such as outage notification, AMR, customer demand management, and real time telemetry and equipment monitoring in the distribution system. While Central Hudson currently has no intention to provide broadband services to the public using this technology, if commercial development of BPL turns out not to be commercially viable, the Commission should not prevent utilities from implementing BPL where warranted to serve customers, and the Commission should not permanently preclude utilities from providing BPL services to the public in the future.

Central Hudson views the BPL system as different from traditional cable or telephone equipment in that the information is traveling on the utility's conductors. Signal injection points may dictate a single BPL provider in a geographic circuit area. While the electric media may be able to support multiple vendors operating at different frequencies, the physical attachment space is limited. Therefore, there should be consideration as to whether the Commission needs to establish franchising for BPL providers.

As noted above, Central Hudson is not advocating any particular model at this time. However, in light of the fact that the landlord model will be considered by the Commission, the following comments in relation to that model are provided here for the Commission's consideration. Under the landlord model, appropriate "attachment fees" will be paid to the utility. These fees should take into account access to all components of the electric system that a BPL provider uses. The fees need not necessarily be cost-based, but should be adequate to assure that the utility's actual costs incurred in relation to BPL are met, and that some contribution to fixed costs is also provided. Because customers ultimately pay for utility facilities, BPL vendors should be required to pay some appropriate contribution to the fixed costs of those facilities for the privilege of using those facilities.

The Commission stated in the January 25 Order that it believed that "there may be intrinsic value to BPL providers in gaining access to and using electric utility assets and that this value is dependent on the economics of BPL technology, rather than a formulaic allocation of sunk utility costs to the BPL provider." However, the propositions that there is intrinsic

value in access and that the quantification of the value is a function of the type of technology do not necessarily lead to the conclusion that BPL vendors should not pay a cost-based fee to the utility.

Finally, it is important to note that there is a potential issue concerning whether the utility has, in every instance, sufficient land interests where it owns less than the fee, to authorize a third-party to make use of the utility's facilities for an unregulated business.

## Conclusion

The reliability of the New York State electric system is the paramount policy principle and objective, and must not be compromised by such PBL policies as the Commission may adopt. The Commission should affirmatively require that BPL operators bear the full responsibility for, and costs associated with, interference and other potentially adverse impacts on the electric system arising from implementing BPL technologies. BPL operators should contribute to the fixed costs of the electric system.

The Commission should adopt standards for manufacture, installation and maintenance of BPL.

Electric utilities should not be foreclosed from pursuing BPL technologies to the extent desirable to provide enhanced services to delivery customers.

Finally, kindly add the undersigned to the Service List in this proceeding. Thank you for your attention to this matter.

Respectfully submitted,

Robert J. Glasser