6436 County Rd. 11
Pequot Lakes, MN 56472
218.562.4877  800.828.4055
Fax 218.562.4878
www.turtletech.com

January 5, 2005

Mr. John Zych
Secretary
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street
26th Floor

**Re: Further comments on Board File No. RP-2004-0196**

As a company that develops both one-way and two-way power line carrier-based AMR systems, Hunt Technologies does not have a direct business interest in the board's decision whether to restrict smart meter implementation to two-way systems. However, as we noted in our earlier comments, we believe it is in the best interest of Ontario's power distributors and consumers to focus on the desired result from this program and not specify certain types of technology.

**1. Mandating a two-way system**

The benefits of a two-way system seem evident on the surface. Only a two-way system can accomplish the kind of data exchange with consumers that the Board views as crucial to developing a dynamic tiered pricing structure. And in most cases, a two-way system will provide other beneficial functions (such as load control) that a one-way system cannot.

Still, we contend that mandating a "one size fits all" solution for a diverse service territory such as the Province of Ontario is not in the best interest of the OEB or the end-use consumer. The main drawback is the limited options for dealing with extraordinary service installations. For example, many local distribution companies (LDCs) use a mixture of technologies to obtain consumption, billing and forecasting data from a diverse range of urban, suburban and rural residences. While wireless networks or radio frequency solutions may work well in dense population centers, they are not technically, or cost, effective in suburban to rural areas. Similarly, the higher level of endpoint functionality from a two-way system may be unnecessary to service seasonal accounts, such as lake cabins, or customers with predictive load profiles, such as apartment dwellers.

The LDCs who service remote, sparsely populated areas should have the option of running low-cost communication systems to these residences. Nothing would be gained by installing an expensive two-way infrastructure to serve a few remote residences when a one-way power line distribution system can be installed and operated in conjunction with a two-way system much more efficiently.

Mandating a two-way system may also serve to negate existing investments distributors have made in communication systems, even though these systems might still be used to meet the demands of the smart metering initiative.

**2. Who should operate the network?**
To the second part of your question – regarding who should operate the two-way communication network – we assume by "communication network" you mean the AMR system chosen to send and receive information from the meter, as opposed to one fixed "network" for the entire Province.

The LDC can do this most effectively. The communication functions of the AMR systems are, for the most part, fully automated and supported best by the power distributor that they are serving. Because most two-way AMR systems today are responsible not only for billing, but also for other functions such as outage management, load control, and service connect/disconnect, it seems realistic that the LDC would want complete control and responsibility for their own communications network.

**Other Considerations**
Specifying a "one size fits all" system for Ontario will be more costly to install and inefficient in its collection of data over time. The best way to hedge against investments in capital infrastructure that may become obsolete is to diversify and select expandable, low-overhead technologies. Allowing LDCs the flexibility to adopt technologies which, in the end, provide the OEB with the desired results is perhaps a more practical approach.

Further, we want to stress the importance of keeping the specification process open to proven technologies. Smart meters or "endpoints" should provide the ability for each customer to choose their own time-of-use plan from a host of options. It is the end results that count in modifying customer consumption behavior. The more flexible the pricing structures are, the more successful the program. Providing LDCs the ability to balance the economic and technical realities represented by their specific customer densities and associated meter densities will position the OEB program for a successful outcome.

Thank you for the opportunity to comment on this important decision making process. We look forward to seeing the final result.

Sincerely,

Todd Headlee
Chief Technology Officer
toddh@turtletech.com