500 Consumers Road
North York, Ontario M2J 1P8
PO Box 650
Scarborough ON M1K 5E3

Patrick Hoey
Director, Regulatory Affairs
phone: (416) 495-5555
fax: (416) 495-6072
Email: patrick.hoey@enbridge.com

2005-01-10

VIA FACSIMILE and COURIER

Mr. John Zych
Board Secretary
Ontario Energy Board
2300 Yonge Street, 26th Floor
Toronto, ON M4P 1E4

Dear Mr. Zych:

Re: RP-2004-0196
Smart Electricity Initiative Implementation Plan

Attached please find the submission of Enbridge Gas Distribution Inc. in response to the Board's request dated December 21, 2004 for additional comments from stakeholders on several issues raised in the Smart Meter submissions. Please find enclosed nine copies of the submission and one copy will also be sent in Word and PDF formats by email to SmartMeters@oeb.gov.on.ca.

Yours very truly,

[original signed]

Patrick Hoey
Director, Regulatory Affairs

Ontario Energy Board

Implementation Plan on Smart Meters

RP-2004-0196

Enbridge Gas Distribution Inc. Comments on
Two-way Communication Networks

Enbridge Gas Distribution Inc. commends the work of OEB in actively involving stakeholders in identifying major issues and finding solutions for the roll out of the smart-meter initiative. Enbridge Gas Distribution, as the largest gas distribution utility in Canada, is pleased to participate in all proceedings and submissions that could potentially transform the way that utilities work in Ontario.

Enbridge Gas Distribution is encouraged by the similar thinking of several firms that have recommended two-way communication instead of one-way communication networks as the minimum standard. Following are Enbridge Gas Distribution's responses to the Board's five questions in which the company recommends two-way communication networks as a minimum standard for Ontario.

1. What are the benefits and drawbacks of mandating a two-way communication network?

The popularity of AMR deployments was largely driven due to the developments in communication technologies and the continued reduction in associated costs. In our daily lives, we are witnessing the trailing popularity of pagers (one-way communication systems) and the increasing use of cellular phones and Blackberries (two-way communication systems). Similarly Ontario should take advantage of the latest technology and adopt two-way communication systems for AMR deployments.

Two-way communications provide the flexibility, additional functionality and operational efficiencies in relaying real-time information and ability to control energy consumption. Following are the widely known advantages that the two-communication networks bring:

- On demand meter reading
- Real-time pricing signals

- Interaction between utilities and consumers
- Remote connect/disconnect services
- Demand response programs
- Load control management
- And other energy management services.

Of these Enbridge Gas Distribution believes that there is significant advantage to “on demand meter reading” as this facility would allow utilities to ask for precise meter reading on house closings and on account transfers from one commodity vendor to another. Both of these are costly inefficient exceptions to the generally efficient process of meter reading that exists in most utilities to day. As stated in our previous submissions, Enbridge Gas Distribution is prepared to consider changes to its metering systems where there are potential benefits for its ratepayers.

In addition to the above, two-way communication networks could be utilized by gas, electric and water utilities for other functions like work and distribution network management, and home monitoring.

These advantages of two-way communications benefit both the utilities and consumers in managing energy consumption and in other energy services that could result in operational cost reductions.

A perceived drawback some parties may see is that the cost of two-way communications is higher when compared with one-way systems. Justifying these costs presents the same challenges that any utility faces in justifying any AMR deployment. The current meter-reading costs are low in Ontario and it is essential that other factors beyond meter substitution costs need to be considered. Two-way communication networks provide the capability to maximize the AMR investments.

If two-way communication is introduced as a minimum requirement and competition exists for network sales to MEU buying groups, the cost of network services can be reduced considerably. The sharing of communication networks by electric, gas and water distribution utilities would provide additional economies resulting in further price reductions.

With the supply/demand constraints in Ontario’s energy markets, the utilities and the ratepayers will be more interested in the availability of information and the capability to control energy consumption. This shifts the focus away from reducing operational costs to looking at a holistic picture of reduced costs related to energy efficiency and supply reliability.

2. In the event of Province-wide two-way communication, should electricity distributors be responsible for operating the communication network?

Some distributors may have capital and resource constraints and/or prefer to direct their capital and resources towards developing critical infrastructure like wires, transformers etc. With these conditions it is recommended that distributors not be responsible for operating the communication networks, but rather be the receiver of these services from the other organizations. Firms that focus on communication-networks with scale of economies can offer lower costs to the utilities and hence to the end–consumers. Where larger utilities choose to build their own networks for this purpose, they should be required to demonstrate that the cost of doing so is less than using other available networks.

3. If not, how should a communication operator or operators be selected?

The communication operator should be selected by means of a competitive RFP. Competition would help in getting the most economical prices. The RFP should be open for both public and private networks. Competition between a variety of suppliers will ensure the communications costs remain as low as possible and ensure that the network evolves with technology in a cost-effective manner.

4. How would rates for the communication operators be set and/or collected?

The rates from the communication operator should be based on the fair market value. Competition in two-way communication will bring the most economical and efficient rates. This is another advantage in two-way communication networks that in our view will not exist in one-way communication networks.

5. If there is a two-way communication network, would an open data protocol aid the development and availability of end-devices and services?

Enbridge Gas Distribution recommends that a standard open architecture be specified rather than a standard product. This would facilitate more competition and improve the market's ability to add more devices and services. The OEB should insist on open architecture in the RFP, which would increase the inter-operability between different kinds of meters. This would also avoid the risk of a single supply source.

As most, if not all, of the one way protocol choices are proprietary, two way communication has the added advantage of being based on well established standards which will generate the highest level of competition and the greatest number of innovative devices for the consumer to choose from in order to reduce their overall energy consumption.