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Memorandum

To: Board Secretary
Ontario Energy Board
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From: C. Turner, P.Eng

Date: April 21, 2011

Subject: EB-2008-0346
Comment re: Demand Side Management (DSM) Guidelines
for Natural Gas Utilities

We have been involved in DSM activities on behalf of Enbridge and Union Gas with regards to improvements in energy efficiency of numerous industrial, commercial and institutional plants in Ontario.

Most of the plants in Ontario are under severe pressures to reduce their operating costs. Their major operating costs are material, labour and energy use.

If, at any time in the future, a "Cap and Trade" market in carbon dioxide emissions is introduced, our industries will be faced with higher energy costs. To remain competitive, our industries must reduce their emissions and subsequently their energy use.

Energy cost reductions are often the easiest to implement, and when enacted, show an immediate return on investment.

As the Board are well aware, retaining and maintaining our remaining Ontario industry is of paramount importance to the Ontario economy and the Ontario tax base.

The majority of Ontario's Industries do not have the engineering or financial resources required to investigate energy inefficiency improvements or even realize what potential might exist. The Gas Utilities have a unique overview of Industry and technologies and methods pertinent to efficiency improvements. The DSM program has been particularly effective in gaining a good understanding of the current state of the industrial sector and what can be done to improve energy efficiency.

The DSM program is also providing the benefit of discovering safety concerns in the course of hands-on Site surveys and efficiency testing performed by the Gas Utility DSM Personnel assisted by Energy Consultants. The same technical personnel performing these tests are experienced with respect to the applicable codes and standards and safe operating practices. The Gas Utilities have acquired expensive test equipment that gas customers do not possess. The equipment is effectively utilized and the costs are minor when spread across the customer base. Discoveries include potential hazards such as carbon monoxide exposure, burn risks, non-compliant burner management systems/piping, poor operating conditions that could lead to combustion explosions and environmental non-compliance. In our view the program has already prevented numerous accidents and injuries.

Ontario has Professional Engineers with the engineering knowledge and skills required to investigate and realize improvements to the industrial processes. Unfortunately, Ontario's small industry (and increasingly large industry also) is in no position to finance engineering studies and process implementation schemes. The Utilities have become aware of which Engineering Consultants are best suited to the particular nuances of specific customers based on a close working team approach over the coarse of many years of DSM studies. They are also aware of the follow-up successes and have been able to adjust the recommendations based on past experience.

The DSM program has been of significant help to Ontario industries as well as employing the resources of the Province's Engineering and construction services by creating employment for these sections of the Province.

We agree that there should be a focus on monitoring energy consumption and improvements and that data analysis should be performed by the Energy provider. However, this often requires expensive metering equipment and data collection equipment beyond the budget and in-house expertise of the customer. Analytical methods and selective temporary installation of metering equipment has been used effectively in the DSM programs to demonstrate the savings potential to customers.

We are aware of the success of these recommendations as we have carried out the detailed engineering and construction supervision of numerous projects resulting from the DSM program.

Industry in Ontario trusts the Gas Utility DSM Team findings and recommendations as they are rightfully perceived as being impartial rather than being slanted for the sale of a particular product or service.

In our experience the Utilities have correctly focused their attention and resources in proportion to the natural gas consumptions of the customers and also on Industry sectors having a viable chance of remaining in Ontario. This minimizes subsidization by other customers.

The Ontario Power Authority has the mandate to promote distributed combined heat and power, clean energy and waste heat recovery. These activities often involve utilization of natural gas such as for gas turbine generators and reciprocating engines or displacement of natural gas by alternate fuels such as biomass, digester gas or land-fill gas. Larger proponents may have the resources to embark on such projects on their own, but most aren't aware of the opportunities and the DSM program can provide an initial assessment of the potential. Work performed during earlier studies, particularly in the establishment of energy consumption profiles are a valuable starting point for these more complex initiatives.

Rather than reducing the DSM program, an expanded definition of what qualifies for the program should be developed.

In addition to Combined Heat and Power, the Energy Board should also be sponsoring a greater degree of distributed power generation by micro gas turbine generators in combination with solar panels and small wind turbines. This process system could be administered by the City Electrical Utilities or be under the domain of the Gas Utility DSM program or at least where it overlaps with the larger gas customers as part of an overall energy systems approach.

The combined measures would have the effect of reducing the need for a larger Power Grid System, reducing gaseous emissions, support green energy, use the existing natural gas distribution system, reduce costs and provide work within the Province of Ontario.

Distributed electrical power generation is beginning to get a foothold in the US particularly on University campuses. Ontario could and should be a leader in this process commencing with our Universities and Institutional buildings.

The DSM program is providing a valuable service to Industry in Ontario. It would be unfortunate to de-fund the program and consequently dismantle such a well respected and experienced program of energy Professionals.

We are of the opinion that the DSM program should be maintained and adjusted to suit the changing energy needs and objectives. The investment is serving Ontario's interests well.