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October 2, 2015

Ontario Energy Board
2300 Yonge Street
27th Floor
Toronto, ON M4P 1E4

Attention: Kristen Walli, Board Secretary

Dear Ms. Walli:

**Re: Ontario Sustainable Energy Association's ("OSEA") Written Argument
Board File No. EB-2015-0029/EB-2015-0049**

Please find enclosed OSEA's Written Argument.

Yours truly,

Joanna Vince

Encl.

cc: Nicole Risse, Executive Director, OSEA
All parties

Document #: 898027

ONTARIO ENERGY BOARD

IN THE MATTER OF the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15 (Schedule B).

IN THE MATTER OF an Application by Enbridge Gas Distribution Inc. and Union Gas Limited pursuant to Section 36(1) of the *Ontario Energy Board Act, 1998*, for an Order or Orders approving their Demand Side Management Plan for 2015-2020

WRITTEN ARGUMENT OF ONTARIO SUSTAINABLE ENERGY ASSOCIATION

October 2, 2015

I. INTRODUCTION

- 1 The Ontario Sustainable Energy Association (“OSEA”) is a province-wide, non-profit organization centred on the vision of sustainable energy development. OSEA promotes the view that every Ontarian can be a conserver and generator of sustainable energy. OSEA is a public interest organization that works towards a sustainable energy future. This includes ensuring funding and rates that encourage both conservation and the incorporation of green energy.
- 2 OSEA is Ontario’s lead advocate, facilitator and catalyst for sector transformation and the transition to a more sustainable energy economy.

- 3 OSEA serves as an advocate for individuals, manufacturers, installers, developers, municipalities, First Nations, unions, farmers, co-operatives and other community organizations, NGO's and other associations supportive of, and engaged in, the full portfolio of sustainable energy solutions.
- 4 Sustainability refers to meeting our own needs and improving the quality of our lives while ensuring the ecological system that sustains us is healthy and capable of supporting future generations.
- 5 OSEA is supportive of the demand side management (“DSM”) programming and the ultimate goals of reducing natural gas consumption and lowering energy bills for Ontarians.
- 6 OSEA submits that sustainable energy technologies align with the spirit and intent of DSM programming and should be vital tools when preparing DSM programs that will facilitate achieving the desired goals of DSM.
- 7 OSEA submits that Enbridge Gas Distribution Inc. and Union Gas Limited (collectively the “Applicants”) must:
 - (a) identify and assess potential sustainable energy technologies on an on-going basis as new technologies emerge and existing technologies become more cost effective
 - (b) collaborate with electricity utilities and distributors to identify and assess potential sustainable energy technologies that reduce overall energy consumption in a holistic approach and which achieve greater cost-benefits than standalone natural gas reducing technologies

- (c) educate their customers about the availability of feasible sustainable energy technologies and offer programs to assess viability on a case-by-case basis, and
- (d) facilitate greater public access to transparent data on energy consumption and efficiencies that will allow public to assess the feasibility of sustainable energy technologies.

II. **IDENTIFYING POTENTIAL SUSTAINABLE ENERGY TECHNOLOGIES**

- 8 There is a vast catalogue of sustainable energy technologies that are in the marketplace or in development. Mr. Young was asked by OSEA to provide examples of sustainable energy technologies that could be incorporated into DSM programs (Exhibit L.OSEA.1). Mr. Young identified various technologies, such as combined heat and power, district energy, ground source heat pumps, net zero buildings and wind, solar and biogas systems incorporated with thermal energy storage. Mr. Young described how other jurisdictions, such as Denmark, have incorporated some of these sustainable energy technologies to reduce greenhouse gas emissions, energy consumption, and costs to customers.
- 9 OSEA submits that the Applicants need to think broadly when identifying technologies to reduce energy consumption. Currently, Enbridge's Resource Acquisition Program focuses on the identification and replacement of lower efficiency products with higher efficiency products (Enbridge, Exhibit B, Tab 2, Schedule 1, p. 4). OSEA submits that this characterizes energy efficiency too narrowly. The Applicants must assess the feasibility of new technologies beyond simple equipment upgrades. The Applicants should look to incorporate

sustainable energy technologies that transform how energy is produced and consumed to achieve meaningful energy reductions.

- 10 OSEA does not advocate for any specific sustainable energy technology. OSEA believes that the first step must be to identify sustainable energy technologies that are feasible and that meet the overall objective of reducing energy consumption.
- 11 OSEA further understands that the benefits and costs of any sustainable energy technology will be determined on a case-by-case basis.
- 12 Notwithstanding, it is a daunting task to require customers to identify which sustainable energy technologies can be incorporated into their homes and businesses. Customers do not necessarily have the time, money, or the know-how to assess viable sustainable energy technologies.
- 13 The Applicants are in a unique position to be able to generate the necessary data and have the resources to assess the feasibility of sustainable energy technologies. Further, as discussed below, they are also mandated to coordinate with electrical local distribution companies (“LDCs”), which should facilitate the sharing of and access to data and resources.
- 14 OSEA submits that the Ontario Energy Board (“Board”) should mandate the Applicants to conduct feasibility studies on a full spectrum of sustainable energy technologies.

- 15 The feasibility studies could initially be based on general categories of customers established based on factors such as customer type, sector, and natural gas, heat and electricity consumption.
- 16 Once the Applicants identify sustainable energy technologies that would be feasible for a typical type of customer, the options could be presented to specific customers in that category to determine the interest in incorporating the sustainable energy technology. The customers can then request the Applicants to conduct case-by-case assessments to determine if the specific sustainable energy technology is cost-beneficial for that specific customer.
- 17 These feasibility studies should be done on an ongoing basis, as new technologies emerge.

III. COORDINATION OF NATURAL GAS DSM AND ELECTRICITY CDM PROGRAMS

- 18 OSEA submits that the collaboration between the Applicants and LDCs is essential to the identification and subsequent incorporation of sustainable energy technologies in conservation programs.
- 19 Sustainable energy involves the effective and efficient production and use of energy from an array of distributed sources matched in scale and quality to the end use. Sustainable energy requires producing and using energy in a way that meets our needs and improves the quality of our lives while also ensuring that the ecological system that sustains us, our economy and society remains healthy and capable of supporting future generations indefinitely.

20 The purpose of sustainable energy technologies is to reduce overall energy consumption. Sustainable technologies often include both natural gas and electricity measures as well as storage. OSEA submits that energy consumption must be viewed in a holistic and integrated approach and not through distinct silos of natural gas and electricity.

21 In March 2014, the Minister of Energy issued a Ministerial Directive to the Board to “promote electricity conservation and demand management (“CDM”) and natural gas demand side management (“DSM”)” (Exhibit L.OSEA.1, Appendix F). The Ministry of Energy required the Board to establish a DSM Framework taking into account the following specific objectives:

ii. that the DSM Framework shall enable the achievement of all cost-effective DSM and more closely align DSM efforts with CDM efforts, as far as is appropriate and reasonable having regard to the respective characteristics of the natural gas and electricity sectors

iii. that Gas Distributors shall, where appropriate, coordinate and integrate DSM programs with Province-Wide Distributor CDM Programs and Local Distributor CDM Programs to achieve efficiencies and convenient integrated programs for electricity and natural gas customers.

22 In December 2014, the Board published a new DSM Framework for 2015-2020. One of the key priorities of the new DSM Framework is to “increase collaboration and integration of natural gas DSM programs and electricity CDM programs.”

The DSM Framework further states:

The Board expects that coordinated and integrated energy conservation and energy efficiency programs are a primary consideration when the gas utilities are designing and developing all program offerings...

the Board expects that the gas utilities will provide specific evidence showing how the elements of each of their proposed

programs can be integrated with electricity CDM programs and coordinated with electricity distributors and/or the OPA.

- 23 The incorporation of sustainable energy technologies in DSM programs is consistent with the March 2014 Ministerial Directive, where the preamble of the directive states “it is desirable to achieve reductions in electricity consumption and natural gas consumption to assist consumers in managing their energy bills...” This recognizes that Ontarians pay for energy from the same pocketbook, even where they pay separate bills for natural gas and electricity.
- 24 For example, sustainable energy technologies such as combined heat and power may not reduce natural gas consumption at a specific site, but will reduce electricity consumption and associated energy inputs. Combined heat and power systems serve the purpose of reducing overall energy consumption in a sustainable manner and effectively reduces energy bills for Ontarians.
- 25 The Applicants have the authority to pursue these energy reducing initiatives under the September 2009 Ministerial Directive to the Board (Exhibit L.OSEA.1, Appendix E). The Ministerial Directive authorized the Applicants to own and operate (i) renewable energy electricity generation facilities (not exceeding 10 MW capacity), (ii) generation facilities that produce power and thermal energy from a single source, (iii) energy storage facilities, and (iv) assets such as solar-thermal water and ground-source heat pumps. OSEA submits that the Applicants should be assessing the feasibility of these technologies given the clear policy direction by the Minister.

- 26 OSEA submits that there should be a greater emphasis on collaboration between natural gas utilities and LDCs, and in particular in the screening, assessment and incorporation of sustainable energy technologies.
- 27 The Applicants' efforts to comply with the DSM framework's principle of collaboration has primarily consisted of high level discussions with their LDC counterparts, including participation in the Conservation First Implementation Committee and various working groups (Union Gas, Exhibit A, Tab 1, Appendix C and Enbridge, Exhibit B, Tab 4, Schedule 1 and 2). The Applicants have yet to engage in substantive pilot projects with LDCs (Exhibit I.T11.EGDI.Staff.30 and Exhibit B.T11.Union.Staff.31).
- 28 Further the Applicants have either not engaged in or have had limited discussions with LDCs about sustainable energy technologies, such as air-source heat pumps and ground source heat pumps (Exhibit I.T5.EGDI.Staff.19 and Exhibit B.T5.Union.Staff.22).
- 29 OSEA recognizes that it is still early in the collaborative process and it will take time for the Board, the gas utilities and LDCs/IESO to understand how best to collaborate, create and implement programs and assess the funds used and the resulting energy conservation.
- 30 OSEA submits that the Applicants should be mandated by the Board to discuss sustainable energy technologies with their LDC counterparts. Furthermore, the Board should require the Applicants conduct feasibility assessments in coordination with LDCs of various sustainable energy technologies with defined timeframes.

31 The collaboration between natural gas utilities and LDCs is a key priority in the Ministerial Directives and DSM Framework, and as such the Board must ensure that the Applicants continue to progress beyond the current high level discussions and working groups.

IV. **EDUCATING CUSTOMERS ABOUT SUSTAINABLE ENERGY TECHNOLOGIES**

32 Education and marketing of available and feasible sustainable energy technologies will be essential in order for customers to incorporate the technologies and should be a mandated requirement in DSM programming.

33 Mr. Young described the low energy literacy about sustainable energy technologies which can act as a barrier to their incorporation in the marketplace (Tr. 9, p. 156).

34 Currently, the Applicants are not incentivizing or marketing sustainable energy technologies to their customers. The Applicants often rely on their customers to approach them with potential technologies to incorporate. This presents a barrier to wide-scale incorporation of sustainable energy technologies because of the low energy literacy.

35 Union Gas identified that it was not providing incentives for sustainable energy technologies such as ground source heat pumps or solar thermal for water (Tr. 2., p. 141). However, Union Gas identified that it was willing to provide technical support as a potential custom offering (Tr. 2, p. 142).

36 Enbridge identified that it was not marketing sustainable energy technologies to customers. Enbridge provides the “Savings by Design” which allows builders to

select technologies to meet the goal of building structures that are 25% more efficient than the Building Code (Tr. 5, p. 139-140).

37 Enbridge's application also contains the Energy Leaders initiative directed at commercial or industrial customers who are "leading edge" customers in energy efficiency by incentivizing "new, emerging and cutting edge technologies" (Enbridge, Exhibit B, Tab 2, Schedule 1, pp 19-22). Enbridge's Energy Leaders program is a good first step, however it needs to be expanded to a mass market scale. Enbridge should be striving to target not only "leading edge" customers that are already energy conscious, but also to target customers who are not on the "leading edge" and would not normally consider incorporating sustainable energy technologies.

38 The Applicants need to be more pro-active in educating their customers about sustainable energy technologies and work with customers to assess the benefits of these technologies for the customer.

V. FACILITATING MORE MEANINGFUL ACCESS TO DATA

39 The availability of the necessary data will be important for customers and the Applicants to determine what sustainable energy technologies are feasible and worth incorporating into DSM programs.

40 Mr. Young identified that access to accurate data and information is critical to the decision-making process. Mr. Young identified that in his experience other jurisdictions provide better access to data to facilitate the decision making process (Tr. 9, p. 132-133).

- 41 Mr. Young explained that data is needed to determine how much energy is used to produce electricity and thermal energy to understand overall energy efficiency. (Tr. 9, p. 156). This helps customers, utilities, energy producers and the Board to understand where energy conservation and savings can be found throughout the entirety of the existing energy system and move towards a sustainable low cost energy system.
- 42 OSEA submits that a co-ordinated effort with LDCs and natural gas utilities is required to establish an “open data” approach to energy production, distribution and consumption data.
- 43 The Applicants and LDCs should be working towards establishing a network to maintain continuous reporting of key performance indicators of Ontario’s energy efficiency performance that can be used by industry to stimulate development of sustainable energy technologies.

VI. RELIEF

- 44 OSEA submits that the Board should order the Applicants to:
- (a) identify and assess potential sustainable energy technologies on an on-going basis as new technologies emerge and existing technologies become more cost effective
 - (b) collaborate with electric utilities and distributors to identify and assess potential sustainable energy technologies that reduce overall energy consumption in a holistic approach and which achieve greater cost-benefits than standalone natural gas reducing technologies

- (c) educate their customers about the availability of feasible sustainable energy technologies and offer programs to assess viability on a case-by-case basis, and
- (d) facilitate greater public access to transparent data on energy consumption and efficiencies that will allow public to assess the feasibility of sustainable energy technologies.

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