TORONTO

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October 15, 2014

Ms. Kirsten Walli, Board Secretary
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, Suite 2700
Toronto, Ontario M4P 1E4

Dear Ms. Walli,

Re: Demand Side Management Framework for Natural Gas Distributors
(OEB File No. EB-2014-0134)

As part of the consultation process for the DSM Framework, this letter submission from the City of Toronto (the "City") proposes additional components that the OEB should incorporate into the DSM Framework. These suggestions further the particular objectives listed in paragraph 4 of the Minister of Energy's March 26, 2014 directive (the "Ministerial Directive"), build on the guiding principles in Part 3.0 of the September 15, 2014 Draft Report of the Board (the "Draft Report"), and are appropriate "other factors" that, according to the Directive, the OEB should consider. The City's recommendations are as follows:

1. Set local DSM targets for the Greater Toronto Area ("GTA") and elsewhere in the Province to more accurately account for and reflect the varied natural gas demand and supply experiences throughout this geographically large and diverse Province.

2. Mandate and verify co-delivery between DSM and CDM of offerings, timetables, and targets to better achieve effective coordination and integration.

3. Require, where possible, DSM delivery agents to partner with municipalities to deliver DSM offerings to achieve higher customer participation levels and pursue long-term energy savings.

4. Enhance gas utility infrastructure planning at the regional and local level with climate change adaptation resiliency considerations.

5. Adjust the current low income program eligibility criteria to maximize participation in achieving deeper energy savings.

The City offers these suggestions based on decades of experience as both an end user and a delivery agent. As the largest city in Canada and the fourth largest in North America, the City adopted a Climate Change Action Plan in 2007[1] and a Sustainable Energy Strategy in 2009[2] that together set electricity and natural gas conservation targets – as well as encourage greater renewable energy generation -- to ensure the City is on track to improve air quality (particularly NOx emissions), reduce greenhouse gas emissions, facilitate energy cost savings, and enhance the well-being of its residents to make Toronto the most environmentally sustainable city in North America. Such a solid foundation has made it easier for natural gas distributors, among others, to achieve their goals pursuant to the OEB's current and prior DSM frameworks.

1. **Set local DSM targets for the Greater Toronto Area ("GTA") and elsewhere in the Province to more accurately account for and reflect the varied natural gas demand and supply experiences throughout this geographically large and diverse Province.**

With respect to long-term natural gas savings targets, the Board should consider target setting on a local as well as a utility service basis. This would allow communities such as the City of Toronto, with its longstanding and active involvement in energy conservation, to continue to deliver innovative energy solutions based on its own needs. Further, the City has a wealth of data and research at a local neighbourhood level that could be employed to help target programs and improve outcomes.

Furthermore, with recent unprecedented population growth[3], energy conservation becomes an imperative for the City as it comes under increasing population intensification pressures (*Places to Grow Act,* 2005) and under the conditions of no new generation and no new bulk electricity transmission as outlined in the OPA's Long Term Energy Plan (OPA, 2013).

Putting in place local DSM targets in addition to utility service area targets recognizes the unique positions of communities with respect to the typology and conditions of the existing building stock and growth – that of communities in 'growth mode', those that remain in 'stable mode', and those that are shrinking mode. For example, 'growth mode' communities like Toronto with a considerable stock of aging high-rise buildings may justify more ambitious targets in order to mitigate the need for new energy distribution infrastructure.

In determining appropriately ambitious targets and commensurate budgets to achieve targets, cost-benefit tests should take into account a full range of benefits from gas conservation including avoided energy distribution infrastructure costs and avoided GHG emissions. The City believes that in doing so, the OEB moves towards implementing the Minister's Directive of achieving "all cost effective conservation".

2. **Mandate and verify co-delivery between DSM and CDM of offerings, timetables, and targets to better achieve effective coordination and integration.**

The City supports the objective in the Ministerial Directive "(to) integrate and coordinate DSM and more closely align DSM efforts with CDM efforts … as far as is appropriate and reasonable." and the principle in the Draft Report to "Where appropriate, coordinate and integrate DSM and electricity CDM efforts to achieve

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[1] The Climate Change Action Plan can be accessed here: http://www1.toronto.ca/wps/portal/contentonly?vgnextoid=4e4c295f69db1410VgnVCM10000071d60f89RCRD&vgnextchannel=a201fbfa98491410VgnVCM10000071d60f89RCRD

[2] The Power to Live Green: Toronto's Sustainable Energy Strategy can be accessed here: http://www1.toronto.ca/city_of_toronto/environment_and_energy/key_priorities/files/pdf/2009-10_report.pdf

[3] Toronto's population grows at about 38,000 people per year, Toronto's Economic Dashboard

efficiencies." Integration of conservation efforts will ultimately lead to cost-effective delivery of programs especially when it comes to overhead costs.

However, such 'integrating and coordinating' goals cannot merely be aspirational; they must include specific mandates concerning offerings, timetables, and targets to truly be effective. A recent report from the American Council for an Energy Efficient Economy found that combined natural gas and electric energy efficiency programs often deliver additional energy and dollar savings at lower cost to utilities and consumers compared to single-fuel programs. Despite challenges and barriers, such as utility concerns about cross-fuel competition, the administrative effort involved, regulatory barriers and questions of program design and implementation, top-performing states that have achieved program energy savings tend to have laws and regulations supporting combined programs.[4]

The City already requires coordination and integration wherever possible. For example, our Toronto Green Standard requires that new developments produce a "Design Development Stage Energy Report" that demonstrates 15% energy efficiency improvement over the Ontario Building Code (OBC) through both electricity conservation *and* natural gas conservation. Similarly, our Home Energy Loan Program ("HELP") allows and encourages the use of local improvement charges to support residential infrastructure improvements that address both electricity *and* natural gas savings simultaneously.

Moreover, as explained further in the next section, identifying "cost effective" strategies, the City urges the OEB to consider co-delivery models which enable municipalities to lead conservation projects.

### 3. Require, where possible, DSM delivery agents to partner with municipalities to deliver DSM offerings to achieve higher customer participation levels and pursue long-term energy savings.

The City applauds the OEB's commitment in its guiding principles to design programs to "achieve high customer participation levels" and "pursue long-term energy savings." A proven approach to satisfying these principles is to encourage DSM delivery agents to work closely with municipalities in providing programs to end users.

The City has seen first-hand the benefits to DSM uptake when partnering takes place with the City. A good example of this on the residential side is the City's Home Energy Loan Program (HELP) which has facilitated greater uptake by residents of Enbridge's DSM offerings. Residents inherently trust government to ensure that the program itself has considered long-term goals, not just short term benefits to the utility. Moreover, the HELP program, along with other City programs, co-delivers with electricity providers, thereby making it appealing to a wider audience.

On the commercial side, a good example of municipal partnering is the leveraging that has taken place among the OPA's High Performance New Construction Program, the Toronto Green Standard and the City of Toronto's Better Buildings Partnership – New Construction program which together offer development charge rebates for new buildings built to a certain efficiency standard.

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[4] A copy of this report can be accessed here: https://www.aceee.org/research-report/u1406

To further the City's ability to target program delivery to areas where conservation will be most effective, the City requests that the OEB require utilities to work with municipalities regarding the sharing of energy consumption data at a geospatial level for program planning purposes. For example, the intention of the City's latest Energy and Emissions Inventory was to identify places in the City with high energy intensities in order to design targeted long term energy conservation programs and include opportunities for distributed generation. While the study had access to 92% of low rise residential *electricity* customers' consumption data at the six digit postal code, only 24% of *gas* customers' consumption data was made available at the same level of aggregation. Therefore, no definite linkages could be made between natural gas consumption and the City's building file for long term planning purposes.

Furthermore, the City of Toronto's current investigation into mandatory energy and water use benchmarking and reporting regulations may serve as a portal into sharing and analyzing energy consumption data at a large building level. The benchmarking experiences in U.S. cities such as New York, Chicago and Washington D.C. suggest that tracking and comparing building energy and water use, combined with public disclosure, have triggered improvements in building energy performance over time. Energy benchmarking is considered a strategy that involves a long term commitment to energy conservation because the program is structured such that building owners will seek continuous improvements on their buildings if they are recognized for these achievements within their own peer group.

## 4. Enhance gas utility infrastructure planning at the regional and local level with climate change adaptation resiliency considerations.

The City is pleased with the OEB's forward-looking guiding principle to "Ensure DSM is considered in gas utility infrastructure planning at the regional and local levels." and sees this as the entry to address the issue of energy resilience. The City speaks from experience as during the past year, Toronto residents and businesses experienced an unprecedented summer flood and winter ice storm. Toronto City Council directed City staff to be more pro-active in promoting resiliency and ensuring that energy provision does not become a limiting factor for growth and economic development. Following from this approach, the Premier's 2014 mandate letters to the Minister of Environment and Climate Change and the Minister of Energy emphasize resilient energy planning, thereby making this guiding principle in the Draft Report of the utmost importance.

Below are some key ways in which the OEB can implement this guiding principle in the final DSM Framework:

### a. Opening Up the Definition of DSM

To parallel the Minister's directive regarding the inclusion of "activities aimed at reducing electricity consumption and reducing the draw from the electricity grid, such as geothermal heating and cooling, solar heating and small scale (<10MW) behind the meter customer generation" as part of CDM, the City urges the OEB to consider expanding the definition of DSM to include "renewable, solar thermal, biomass, gas displacement, geothermal, and combined heat and power systems". In doing so, the ability to pair embedded energy solutions with very local energy needs paves the way to energy resilience in uniquely stressed areas of downtown Toronto therefore foregoing the need to build larger and less efficient infrastructure.

### b. Focus on Embedded Energy Solutions

The City of Toronto knows that in order to continue to support a growing population, local generation of energy will be necessary. It is therefore the desire of the City to develop appropriate solutions to energy supply at the local level as large scale electricity and natural gas infrastructure require approvals beyond the timeline necessary for on the ground provision. The premise of local energy solutions is to first plan on an area basis, not a building by building basis, what energy provision may be needed and then to the identify appropriate conservation initiatives and low carbon energy supply at the source of the demand.

For instance, the current Regent Park Revitalization Project has a district energy plant located below grade in the basement of a 22-storey residential high rise which in part will supply power to approximately 12,500 people. This Energy Centre will generate 30 MWt of heating and 4,500 tons of cooling when built. Having the flexibility to fuel switch from natural gas to geoexchange to biomass or other clean/renewable fuels at source will ensure a continuous supply of energy without having to add new infrastructure.

### c. Resources for Utilities to Build Resilience

Apart from discussion of displacing future infrastructure needs through demand side management, the OEB does not mention how provision of natural gas will stand up to climate change risks and how these risks will be mitigated in the event of service disruptions caused by flooding and wash outs in the distribution system. The mitigation of these risks is critical in built-up centres such as the City where the high-rise building typology is prevalent and presents particular vulnerabilities. The City requests that the OEB provide direction to the utilities to identify these risks and in addition, to identify how they plan on mitigating these risks.

## 5. Adjust the current low income program eligibility criteria to maximize participation in achieving deeper energy savings.

The City of Toronto welcomes the OEB's commitment to providing opportunities for conservation for Ontarians of low income and encourages broader application of such programs. The City's Tower Renewal Office has worked in apartment communities across Toronto and found that there is a need for a program to support privately owned rental apartment buildings in low-income areas in making energy efficiency improvements. Typically, owners of these buildings face the unique constraint of not being able to pass through the costs of capital improvements or increased costs of utilities to residents because residents have limited ability to pay. Yet, as many of these buildings are over 40 years old, improvements can result in significant reductions to building energy consumption, utility costs and greenhouse gas (GHG) emissions as well as enhancement to the quality of life for building residents.

Recently, the Tower Renewal Office has worked closely with Enbridge to support the development and implementation of conservation incentives for privately owned rental apartment buildings in low-income areas. Using local geospatial analysis of census data, the City was able to identify areas with a prevalence of low income individuals residing in apartment buildings and work with Enbridge to articulate guidelines for a targeted program to serve these buildings. The City encourages the OEB to continue to support the usage of this type of area-based methodology to determining eligibility and consider allowing the broader application this methodology over time.

With respect to the low income programs details in the Draft DSM Filing Guidelines (Section 2.6), item 1(b) states that low income natural gas DSM programs should be accessible to private low-income multi-residential

buildings; yet, the program eligibility screening requirement would effectively prevent these buildings from participating. For instance, it would not be feasible for privately owned rental apartment buildings to comply with the requirement for individual income verification due to privacy regulations. As a result, the requirement for income screening would disqualify buildings and the income eligibility requirement for deep measures (stated in item 1(d)) would preclude buildings for qualifying for deep measures. Further, the consistency of the DSM guidelines with the OPA low income eligibility criteria is welcome as a means to facilitate coordination; however, it is unclear whether privately-owned rental apartment buildings would meet the utility bill payment responsibility criterion and building eligibility criterion. The City requests that the OEB adjust the low income eligibility criteria to address these issues.

With respect to the OEB income eligibility criterion (stated in item 1(a)), the current criterion is referenced to Statistics Canada's Low Income Cut-Off (LICO). Statistics Canada has advised that broad use of LICO will be discontinued and Statistics Canada will instead be using the Low Income Measure (LIM). The City requests that the OEB provide guidance to utilities (such as an LICO - LIM equivalency) so that the low income program eligibility can be determined using information that is currently available and will continue to be supported.

In 2010-2011, the City of Toronto worked with Enbridge Gas and Toronto Hydro to jointly deliver the Help Program to low income, single family homes (either renters or owners). Of the 55 homes approved for full funding, participating residents:

- Reduced, on average, their natural gas consumption by 32%;
- Reduced, on average, their personal greenhouse gas emissions by 3 tonnes;
- Saved, on average, a $319 per year on their natural gas bills;
- Saved, on average, a $100 per year on their electricity bills;
- Reduced their annual operating costs for their home and thereby reducing potential demands for financial assistance from the City (e.g. property tax reductions).

This is yet another example of how, with combined effort and using the City's unique knowledge of its building stock and local socio-economic factors, the delivery of low incomes programs can be maximized to achieve deep conservation savings.

**Summary**

The City of Toronto strongly supports the principles of the Ministry's vision for "Conservation First" and agrees that conservation will help Ontario communities grow without building new infrastructure to accommodate load growth, create jobs related to conservation, and achieve cost effective energy supply which is affordable for all Ontarians.

Furthermore, in applying conservation principles to natural gas usage all Ontarians will reap benefits from reduced greenhouse gases and NOx emissions. Staff from the Environment and Energy Division would welcome the opportunity to explore the ideas articulated in this letter further with the OEB and on any future initiatives which will assist in reducing greenhouse gas emissions and improving air quality.

If you have any questions regarding the comments provided, please contact Jim Baxter, Director of the Environment and Energy Division at 416-338-1295 or by email jbaxter2@toronto.ca.

Yours sincerely,

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City of Toronto

cc Joe Pennachetti, City Manager
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