

**ONTARIO ENERGY BOARD**

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

**AND IN THE MATTER OF** a generic proceeding on natural  
gas expansion in communities that are not served.

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**REPLY SUBMISSIONS OF ENVIRONMENTAL DEFENCE**  
**(Round Two of Submissions)**

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**Reply Submissions of Environmental Defence  
Generic Proceeding on Natural Gas Expansion in  
Communities that are not Served**

*Contents*

Overview..... 1

Significant Consumer Concerns re Gas Expansion Risks ..... 1

    Conversion Rate Risks are Significant ..... 2

Net GHG Emissions Reductions and GHG Targets ..... 4

CCAP Strategy..... 5

Conclusion ..... 6

**Overview**

1. These reply submissions respond to the submissions of other parties in this matter. Environmental Defence’s main and primary submissions are not repeated here. They can be found in its detailed submissions of June 20, 2016.

**Significant Consumer Concerns re Gas Expansion Risks**

2. Like Environmental Defence, numerous intervenors noted that there are very significant risks associated with the proposed uneconomic gas expansion projects, such as lower than expected conversion rates, demand destruction associated with the shift to a low-carbon economy, and stranded assets arising from carbon regulation. The consumer groups that raised these kinds of issues included the Consumers Council of Canada, Energy Probe, the Federation of Rental-housing Providers of Ontario, the Industrial Gas Users Association, the London Property Management Association, and the School Energy Coalition.<sup>1</sup> Consumer groups are clearly very

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<sup>1</sup> Submissions of the Consumers Council of Canada, para. 13; Submissions of Energy Probe, para. 4.12; Submissions of the Federation of Rental-housing Providers of Ontario, p. 5; Submissions of the Industrial Gas Users Association, para. 100; Submissions of the London Property Management Association, p. 29; Submissions of the School Energy Coalition, paras. 1.2.4 & 2.4.15; see also Submissions of the Canadian Propane Association, paras. 65-68 and Submissions of the Ontario Geothermal Association, paras. 2.7.7, 3.2.14, 4.3 & 3.5.

concerned about the significant risks associated with uneconomic expansion projects that are related to climate change.

3. In its primary submissions, Environmental Defence proposed that the utilities quantify these kinds of risks and account for them in comparisons with alternatives such as geothermal and conservation. The significant concerns about these kinds of risks by consumer groups further bolsters the need for this kind of exercise.

### **Conversion Rate Risks are Significant**

4. Based on Enbridge's evidence, Board Staff stated in its submissions that conversion rates are not likely to be impacted by Ontario's cap and trade program.<sup>2</sup> However, the conversion rate analyses conducted by the utilities have not been fully tested, have fundamental flaws, and cannot be relied on to properly assess the conversion rate risk arising from Ontario's climate change strategy and targets, including for the following reasons:
  - a. Enbridge's analysis is based on its assumption that "converting heating and water heating loads from electricity to natural gas will lead to reductions in the Province's CO2 emissions."<sup>3</sup> This contradicts the evidence on the record (and the reality) that the electricity system has been largely decarbonized in Ontario since the phase out of coal.<sup>4</sup> Correct assumptions about the relative greenhouse gas ("GHG") emissions from electric heating and natural gas heating would significantly impact a conversion rate risk assessment.
  - b. Neither of the utilities considered the impact of wide-scale incentives included in the Climate Change Action Plan for alternatives to natural gas conversions (e.g. geothermal and conservation). These incentive programs for alternatives such as geothermal and conservation will surely reduce the customers that will want to convert to natural gas and will compete for consumer capital investments. The subsidies for these alternatives will be in the range of \$1.7 to \$2.5 billion, including most notably \$500,000,000 to \$600,000,000

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<sup>2</sup> Submissions of Board Staff, p. 35.

<sup>3</sup> Evidence of Enbridge, p. 12 (para. 38); see also Transcript vol. 3, p. 28, lns. 2-5.

<sup>4</sup> Transcript Vol. 5, p. 209, ln. 7 to p. 210, ln. 3; ICF, *Economic and Emissions Benefits of Expanding Natural Gas Distribution Pipelines to Canadian Consumers*, p. 24 (EB-2015-0179, Ex. B.CCC.5, Attachment 1).

for low-carbon technologies such as geothermal.<sup>5</sup> Many consumers will decide to convert to geothermal rather than natural gas, especially seeing as the monthly operating cost of geothermal is roughly half that of natural gas.<sup>6</sup> Many others will decide to focus their scarce resources on conservation. The impact of these subsidies on conversion rates has not been considered. It should be.

- c. Neither of the utilities considered the impact of the Ontario government's plan to contribute \$1,000,000,000 to \$1,320,000,000 to keep electricity rates lower.<sup>7</sup> This could impact conversion rates by narrowing the price differential between natural gas and electric heating.
- d. Neither of the utilities considered the possibility that *upstream* GHG emissions will be included in the price of natural gas in the future.<sup>8</sup> Although upstream fugitive emissions are very significant for natural gas produced by fracking, they are not included in the analyses by the utilities. If these emissions are assigned a cost in the local jurisdiction or via a national tax, this would significantly impact the relative cost of natural gas and therefore also conversion rates.
- e. Cap and trade is only one of Ontario's climate change initiatives. Other initiatives have the potential to impact conversion rates but have not been considered.

5. Aside from those specific considerations, Environmental Defence submits that this *generic* hearing is not the proper place to conclusively calculate the likely impact of Ontario climate change strategies on conversion rates. Indeed, this proceeding has not delved into a detailed testing of the evidence regarding conversion rates. Environmental Defence's simply asks that the utilities be required to assess and quantify the conversion rate risks in light of Ontario's climate change initiatives as part of any application relating to community expansion projects.

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<sup>5</sup> Climate Change Action Plan, pp. 65-68.

<sup>6</sup> Ontario's Low Carbon Future: Geothermal Heat Pumps, Dr. Stanley Reitsma, P. Eng., David Hatherton, Martin Luymes, p. 36 (OGA Evidence, Exhibit Reference R11); transcript, vol. 5, p. 72, lns. 5-9.

<sup>7</sup> Climate Change Action Plan, pp. 67.

<sup>8</sup> See the Submissions of the Ontario Gas Association, p. 3.2.5.

## Net GHG Emissions Reductions and GHG Targets

6. A few parties seem to suggest that a natural gas expansion project is consistent with Ontario's climate change strategy and targets as long as it will lead to an initial decline in GHG emissions. This is not the case. It is very likely that Ontario's GHG emissions targets require reductions from residential buildings that are far greater than those that can be achieved by converting from heating oil to natural gas. If a customer is looking to replace an aging oil furnace, it may be necessary to capitalize on that opportunity by giving them an incentive to invest in a conversion to geothermal rather than natural gas. Consumer capital and opportunities for equipment replacement are not unlimited and will likely need to be directed to more effective means of reducing GHG emissions, such as geothermal.
7. Furthermore, cost-effectiveness is a critically important part of Ontario's climate change strategy. A natural gas expansion project that achieves GHG emissions reductions, but only at a very high cost, is not consistent with Ontario's climate change strategy. It would also be taking potential customer capital away from better initiatives such as conservation or renewable energy.
8. Lastly, it cannot be assumed that a hearing on specific expansion projects will find that those projects in fact result in GHG emissions reductions. For example, intervenors at such a hearing would have the opportunity to challenge Enbridge's assertion that natural gas heating produces less GHG emissions than electric heating.<sup>9</sup> Intervenors will also be able to explore whether greater GHG emissions reductions would be achieved *without* an expansion project because consumers' funds would be left available for better alternatives such as conservation or geothermal if they were not tied up in a natural gas conversion. Based on the evidence in this generic proceeding, we cannot assume that specific projects will lead to reduced GHG emissions or that projects that may cause an initial reduction in GHG emissions are consistent with Ontario's climate change strategy and targets.

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<sup>9</sup> Evidence of Enbridge, p. 12 (para. 38); see also Transcript vol. 3, p. 28, lns. 2-5; for evidence contradicting Enbridge's assertion see Transcript Vol. 5, p. 209, ln. 7 to p. 210, ln. 3; ICF, *Economic and Emissions Benefits of Expanding Natural Gas Distribution Pipelines to Canadian Consumers*, p. 24 (EB-2015-0179, Ex. B.CCC.5, Attachment 1).

## CCAP Strategy

9. Environmental Defence agrees with the Ontario Geothermal Association's proposal that the utilities be required to submit a strategy regarding compliance with Ontario's Climate Change Action Plan. Environmental Defence submits that such a strategy would need to address how Ontario's GHG emissions targets can be achieved in the natural gas sector. This kind of analysis could be fairly specific in relation to the 2020 and 2030 targets, while the analysis regarding the 2050 target would by necessity be more high-level. Seeing as we are dealing with long-lived assets, it is critically important that the utilities and the Board consider these longer term issues.
10. Natural gas contributes approximately one-third of Ontario's GHG emissions.<sup>10</sup> Very significant emissions reductions in this area are clearly necessary, which raises fundamental risks for the viability of the natural gas industry and a massive financial risk for consumers. It only makes sense to ask the utilities to develop a robust strategy to consider and analyze this massively important issue.
11. This kind of analysis would involve more than the Cap and Trade Compliance Plans that the utilities will be required to create under that program. Although the latter will relate only to cap and trade, other Ontario government climate change initiatives could also constitute an existential risk to the natural gas industry and should be considered. What is required is a comprehensive, long-term strategy and plan to assess what kind of steps may be necessary to achieve Ontario's GHG emissions reductions targets in the natural gas sector and how those steps could create opportunities or risks for consumers.
12. Of course, not all of Ontario's GHG emissions reductions need to come from natural gas and there is significant uncertainty on how those reductions will be achieved. However, a robust analysis from the utilities could examine multiple scenarios based on different assumptions, including a scenario where it is assumed that emissions from natural gas will remain at approximately one-third of the overall emissions going forward.

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<sup>10</sup> EB-2015-0179, Exhibit B.Energy Probe.2, Attachment 1, Page 4.

13. Requiring the development of a Climate Change Strategy by the utilities would encourage an integrated, holistic, and rational approach to a critical issue that poses an existential threat to the natural gas industry and a massive financial risk to consumers.

## Conclusion

14. None of the frequent intervenors participating in this proceeding are in support of the kind of wholesale departure from the EBO 188 guidelines proposed by the utilities.<sup>11</sup> Environmental Defence concurs with many of the concerns raised by those groups. In addition, based on its particular knowledge and expertise, Environmental Defence has highlighted and elaborated on the significant risks and concerns with the utilities' proposals that relate to Ontario's climate change initiatives.
15. Based on these risks and concerns, as set out in its submissions of June 20, 2016, Environmental Defence submits that it should be incumbent on the utilities to establish that any subsidies are justified by tangible benefits (i.e. GHG emissions reductions), that natural gas expansion is the best option available, and that natural gas expansion is consistent with Ontario's anticipated GHG emission reduction initiatives.

All of which is respectfully submitted this 11<sup>th</sup> day of July, 2016.



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<sup>11</sup> Submissions of the Building Owners and Managers Association; Submissions of the Consumers Council of Canada; Submissions of the Energy Probe; Submissions of the Federation of Rental-housing Providers of Ontario; Submissions of the Industrial Gas Users Association; Submissions of the London Property Management Association; and Submissions of the School Energy Coalition.