

Ron Tolmie
Editor, Sustainability-Journal.ca
217 Petrie Lane
Kanata, ON K2K 1Z5
tolmie129@rogers.com
(613) 271-9543

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Ms. Kirsten Walli
Ontario Energy Board
PO. Box 2319
2300 Yonge St., 27th Fl.
Toronto, ON M4P 1E4

Re: EB-2015-0175 Enbridge Gas Distribution Inc. (EGD) NEXUS Long Term Transportation Contract

I would like to be granted intervenor status in this proceeding.

The application proposes that a fundamental change will be made in Ontario's energy supply, namely that much of the natural gas will come from hydraulically fractured shale rock from the Marcellus and Utica plays in the Eastern US. The application does not provide evidence that the amount of methane that will eventually escape from these operations will be within acceptable limits. It also fails to show that the supply will be sustainable - indeed the senior levels of government have already stated that the use of such fossil fuels should be terminated altogether as quickly as possible, and in this case it can be shown that GHG-free energy sources could completely displace the use of natural gas at a lower cost.

2. Guidelines. I submit that the public should have the right to raise such fundamental issues even if they were not listed in the Board's guidelines.

3. Blanket 15 year coverage. Any approval should be subject to future revisions in the event that policies change, or the assumptions on which it was based should change, or in the event that evidence shows that the use of natural gas is not in the public interest. I submit that if those terms are not acceptable to the applicant then the application should be refused.

4. Markets. I will argue that Ontario should **not** be included in the markets to be served, either by way of a pipeline extension to the Dawn hub or via other cross-border links. The evidence does not show that Ontario needs fracked gas from any source.

6. Precedent Agreement. Ontario should not be under any obligation to provide a pre-approval of the cost consequences as required by the Precedent Agreement.

7. I submit that if Enbridge diversifies its supply portfolio then it must conclusively show that any new supplies will not result in increased upstream GHG emissions. Note - at the present time Ontario government agencies misrepresent the GHG emissions by not including the very substantial upstream component and by using an improper value for the GWP of methane (25 vs. the IPCC value of 86 [20 y averaging]).

8. Transportation costs. The NEXUS cost is not competitive with "other alternatives". The same amount of energy could be supplied at competitive costs by other means, with transportation costs that would range right down to zero.

9. Guidelines. There is a question of whether the guidelines were intended to provide guidance on what evidence should be presented for the hearing or constituted a pre-approval of the outcome.

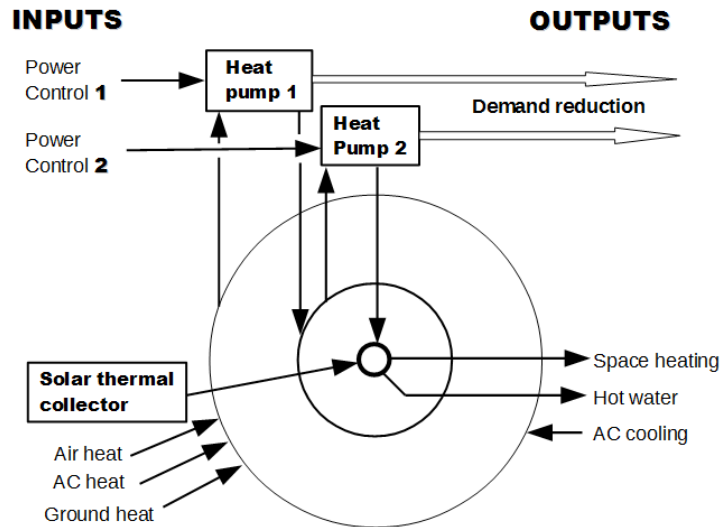
10. Deadline. Ontario's consumption of natural gas is presently the principal source of the province's GHG if you include the upstream component. Adding the delayed emissions that will in time come from the methane that is released from the shale and that eventually reaches the surface is likely to add hundreds of megatonnes of GHG to the total, which is well in excess of the overall limits that have already been set by both levels of government. Committing to a decision by Sept. 24, 2015 would not be reasonable.

12. Who is affected. All residents of Ontario are affected, including those who do not use natural gas as a fuel. A substantial part of the province's electric power is produced by gas-fired generators, and under current assumptions that contribution will increase sharply over the coming decade as the Darlington generators are refurbished. The Bruce stations will also need to be refurbished or replaced soon.

Natural gas that comes from shale rock is indistinguishable from natural gas that is a by-product of oil wells so the only way that the public has to protect itself from the global GHG emissions attributable to the fracking process is to block the transmittal of the shale gas into Ontario. The notice for EB-2015-0175 states that "We (i.e. the OEB) make decisions that serve the public interest." To protect the public interest the OEB will need to consider the above issues.

The cost of using natural gas is not just the cost of transporting it, or the cost of extracting it from the ground and treating it, or the cost of distributing it to consumers. It also includes the consequential costs of cap-and-trade or "carbon tax" measures, the cost of abatement measures and the costs of the damages that result from the failure to control the emissions, which in Ontario are likely to collectively exceed 20 billion dollars per year. Board members should read [the most recent report](#) by Hansen et al that analyses the immense consequences of allowing the global temperature to rise by just 2 degrees.

The direct costs of using natural gas are also in the billions of dollars per year in Ontario. There are cleaner and less expensive alternatives like that shown in the diagram below, which uses local thermal energy to heat buildings instead of using gas. It uses surplus electricity that is available at night to boost the exergy of the heat that has been collected. In addition to supplying all of the heat (and cooling) that is needed such exergy stores could reduce the peak power demand by 10,000 MW, which would greatly reduce the cost of electricity. In the process the need for the gas-fired peaking plants would vanish and Ontario would enjoy permanently sustainable heating supplies, plus cooling and power generation. However, such systems are presently blocked by the government via the OEB-approved charge of 7.7 cents per kWh (plus extras) for nighttime electricity that costs almost nothing at all to the LDC's.



Ron Tolmie is a physicist who has been engaged in a wide variety of energy issues for 62 years, beginning with a seismic survey around Sable Island for the oil and gas deposits that have subsequently been developed. He was employed as a physicist at Atomic Energy of Canada for 15 years, then started a company that developed and manufactured X-Ray emission spectrometers that were used by the mining industry and others, and developed a high temperature heat store (under an NRC contract) for electric power load levelling. For the past decade he has been working on ways to replace fossil fuels with cheaper and more sustainable energy sources, including the exergy stores illustrated in the diagram.

Intention to seek an award of costs

I request to be eligible for recovery of the reasonably incurred costs of my intervention herein.

Ron Tolmie