ONTARIO ENERGY BOARD

EB-2020-0094

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

AND IN THE MATTER OF an application for approval of gas grid expansion financial arrangements.

Submissions of Environmental Defence

Re Enbridge's Gas Grid Expansion Financial Models

September 18, 2020

Elson Advocacy
Professional Corporation
1062 College Street, Lower Suite
Toronto, Ontario
M4H 1A9

Kent Elson, LSO# 57091I
Tel.: (416) 906-7305
Fax: (416) 763-5435
kent@elsonadvocacy.ca

Introduction

Enbridge is seeking an order from the Board pre-approving proposed financial models for gas grid expansion in the form of the Harmonized System Expansion Surcharge ("SES"), Temporary Connection Surcharge ("TCS"), and Hourly Allocation Factor ("HAF").

Environmental Defence opposes the TCS and HAF as both would allow Enbridge to reduce up-front contributions to gas grid expansion projects and thus increase the financial risks borne by existing customers. This is the exact opposite of what Ontario's gas customers need. Climate change is significantly increasing the risk of stranded and underutilized assets. This calls for financial models that better protect existing consumers, not those that expose existing customers to even greater financial risks. If Enbridge is proposing the project and earning the return, it should bear those risks.

That said, Environmental Defence submits that this Board Panel does not have the jurisdiction to issue an order that would either approve or prohibit the use of the SES, TCS, or HAF in this proceeding. The appropriateness of the SES, TCS, and HAF must be determined in future leave to construct applications (for projects over $2 million) and rebasing applications (for projects under that amount). The Board Panel hearing this application cannot fetter the discretion of the Board Panels hearing those future applications. Furthermore, it would not be appropriate to grant this pre-approval sought by Enbridge without important evidence that will only be available in a future leave to construct or rebasing application.

Increased Financial Risks are Inappropriate

Enbridge's TCS and HAF would place undue financial risks on existing customers. For example, the TCS allows homes and small businesses to pay a surcharge "for up to 20 years" as an alternative to up-front payments made prior to the in-service date of the facilities.[1] Under the previous model, existing customers would be protected in part by the up-front payments. Under the new model, this protection is removed. If the new customers convert away from natural gas, the remaining gas customers must cover the remaining balance of the surcharge amount that will go unpaid.

Similarly, the HAF would allow Enbridge to proceed with a project even if it has only secured contractual commitments for 50% of the large volume capacity available for the project.[2] This obviously creates an increased risk for existing customers that was not previously present. In short, the forecast future contractual commitments may not materialize.

With respect to both the TCS and HAF, existing customers bear the risk that the new customers convert away from gas. Enbridge has acknowledged that no further charges would apply in this

[1] Exhibit B, Tab 1, Schedule 1
[2] Enbridge Argument-in-Chief, p. 12.

situation.[3] It has also acknowledged that is not proposing any mechanisms to collect the balance of the payments remaining in the term.[4]

This is the exact opposite of what is needed in the context of shifting energy use patterns and climate change to fulfill the Board's mandate to "protect the interests of consumers with respect to prices and the reliability and quality of gas service."[5] Gas expansion projects are financially risky because the forecast revenue depends on customers spending significant sums to convert their homes or businesses to natural gas. If fewer customers convert than forecast, or some customers convert away from gas in the future, the project will miss financial targets. Without mechanisms to protect against this, the cost and risk is unfairly borne by existing gas customers. They could be on the hook for many millions of dollars.

This financial risk is much higher today than it was in the past. Climate change is causing accelerating changes in energy use patterns. Regulation and market forces are increasing the attractiveness of alternatives to fossil fuels. In five years, natural gas may not be the preferred option for customers in certain communities, especially if they are required to pay surcharges. In ten years, that is even more likely to be the case. Even more so in 20 years or longer.

For example, increased carbon pricing could cause consumers to prefer efficient electric heat pumps over natural gas furnaces.[6] This could also happen as the result of any number of other factors, such as subsidies for low-carbon alternatives, increased economies of scale for low-carbon alternatives, technological advancements, increased accounting of fugitive emissions associated with natural gas fracking and transmission, and so on. Indeed, Enbridge's evidence in a recent community expansion project stated that air source heat pumps had lower annual operating costs versus natural gas after accounting for the surcharge levied in that case.[7]

The financial risks associated with continued investments in fossil fuels are widely acknowledged by financial leaders. For example, Mark Carney recently warned that global warming could render the assets of many financial companies worthless because they have been too slow to cut investment in fossil fuels.[8]

At the moment, energy efficiency and electric heat pumps are by far the most cost-effective means to decarbonize buildings. This is illustrated in the following table prepared solely based on OEB reports and Enbridge evidence:

---

[3] Exhibit I.ED.7.
[4] *Ibid*.
[5] *Ontario Energy Board Act*, 1998, S.O. 1998, c. 15, Sched. B
[6] Canada's Ecofiscal Commission, *Bridging the Gap: Real Options for Meeting Canada's 2030 GHG Target*, November 2019, https://ecofiscal.ca/wp-content/uploads/2019/11/Ecofiscal-Commission-Bridging-the-Gap-November-27-2019-FINAL.pdf.
[7] EB-2019-0188, Exhibit I.ED.9, p. 2 (Enbridge estimates heat pumps will cost $150 to $250 less than natural gas in terms of annual home heating costs after accounting for the surcharge.);
[8] Financial Post, *Global warming could render the assets of many financial companies worthless, Mark Carney warns*, December 30, 2019, https://business.financialpost.com/news/fp-street/boes-carney-says-finance-must-act-faster-on-climate-change.

Comparison of Decarbonisation Options		
	Cost-effectiveness ($/tCO$_2$e, combustion only)	**Decarbonization potential** (% of Ontario gas demand)
Cost-effective energy efficiency	$0 to -$140 (i.e. savings)[9]	25%[10]
Heat pumps	$130 to $200[11] (commodity & capital cost)	Near 100%[12]
RNG	$338[13]	2.5%[14]
Hydrogen	>$900 (commodity cost) + ~$4,000 (capital cost) [15]	6%[16]

The future is unknown. But one possible future scenario is that electrification is the preferred energy option for many buildings. That could happen in, say, 2025 or 2030 or 2035 – all well within the economic lives of gas grid expansion projects. This possibility should be addressed by protecting customers, not putting them at increased risk. If Enbridge is confident that these assets will not become stranded, it should bear the risk, not existing customers.

Pre-Approval Orders are Inappropriate

Enbridge is seeking pre-approval of these gas grid expansion financial models *prior to* the actual leave to construct and rebasing applications that will consider the capital projects themselves.

---

[9] EB-2016-0359, ICF, *Marginal Abatement Cost Curve*, July 20, 2017, prepared for the OEB, p. 14 [link]; Per Exhibit JT1.7 in EB-2020-0066 [link, PDF p. 398], if upstream emissions are accounted for, the cost is $0 to -$108/tCO2e.

[10] Navigant, *2019 Integrated Ontario Electricity and Natural Gas Achievable Potential Study*, prepared for the IESO and OEB, December 18, 2019, p. ix [link].

[11] EB-2016-0359, ICF, *Marginal Abatement Cost Curve*, July 20, 2017, prepared for the OEB, p. A-4 to A-5 14 [link] (heat pumps are $130/tCO$_2$e for new homes and $200/tCO$_2$e for existing homes according to this study, but prices are declining significantly as cold climate heat pumps become more commonplace); Per Exhibit JT1.7 in EB-2020-0066 [link], if upstream emissions are accounted for, the cost is $101 to $155/tCO2e.

[12] EB-2016-0359, ICF, *Marginal Abatement Cost Curve*, July 20, 2017, prepared for the OEB, p. 25 [link].

[13] EB-2020-0066, Exhibit I.SEC.15 [link]; Per Exhibit JT1.7 in EB-2020-0066 [link, PDF p. 398], if upstream emissions are accounted for, the cost is $262/tCO2e.

[14] EB-2016-0359, ICF, *Marginal Abatement Cost Curve*, July 20, 2017, prepared for the OEB, p. 47 [link]; This report estimates a potential of 627 million m^3/yr, which is 2.41% of Ontario's consumption of 26 billion m^3/yr. This potential was considered achievable by 2028 based on a study conducted in 2013. In Exhibit JT1.5 [link], Enbridge estimates the potential as 402 million m^3/yr by 2025, which is 1.55% of Ontario's gas consumption of 26 billion m^3/yr.

[15] Exhibit I.ED.11(a)&(b), p. 2-3 [link, PDF p. 197-198]; Per Exhibit JT1.7 in EB-2020-0066 [link, PDF p. 398], if upstream emissions are accounted for, the cost is over $700/tCO2e for commodity costs and over $3,000 for capital costs.

[16] Enbridge is proposing to blend 2% hydrogen by volume. Because hydrogen is less energy dense, this amounts to 0.6% by energy content. See Exhibit I.ED.12, p 14-15 (h)&(i), link, PDF p. 15-16. No studies have recommended blending beyond 20% by volume (per Exhibit I.ED.7, link, PDF p. 177), which equates to 6% by energy content.

This Board Panel does not have the jurisdiction to grant this relief as it would fetter the discretion of future Board Panels considering future applications.

Enbridge is seeking, "an order approving the following:

> i) A System Expansion Surcharge ("SES") for future Community Expansion Projects;
> ii) A Temporary Connection Surcharge ("TCS") for Small Main Extensions and Customer Attachment Projects;
> …
> iv) An Hourly Allocation Factor ("HAF") to be applied in the economic feasibility calculation for future Development Projects consistent with the Board's EBO 188 Guidelines;"[17]

An "order" that provides "approval" is binding. However, a binding order would bind the hands of a future Board Panel, which is not permissible.

This is also clear from s. 36 of the *Ontario Energy Board Act, 1998*, on which Enbridge relies. This section grants the Board the authority to "make orders approving or fixing just and reasonable rates for the sale of gas".[18] However, Enbridge is not seeking approval of rates. It is seeking pre-approval for financial models that would apply in future rates cases (under s. 36) and future leave to construct cases (under s. 90).

The Board sometimes issues guidelines. However, guidelines are not orders and are not binding.[19] Enbridge has not asked for revisions to guidelines. It has asked for an "order approving" certain things. The Board can issue non-binding guidelines and make binding orders in rates cases and leave to construct cases. Enbridge's request falls outside the boundaries of those actions the Board is authorized to take.

Furthermore, even if the Board had the jurisdiction to issue the kinds of pre-approval orders sought by Enbridge it would be inappropriate to do so. The Board does not have before it critical information that will be included in future leave to construct or rebasing applications in which a SES, TCS, of HAF has been applied. Intervenors and the Board should be able to examine, based on that additional information, whether those surcharges are appropriate in whole or in part. This examination should not be prejudiced by an "order" made in this case without all the relevant details.

Conclusion

As noted above, Environmental Defence opposes financial structures for gas grid expansion that put additional financial risks on existing consumers, particularly in the context of climate change. If Enbridge is proposing the project and earning the return, it should bear those risks. That said, this hearing is not the place for the Board to have the final say and either approve or prohibit the SES, TCS, or HAF. It simply cannot do so. That decision should and must be left to future Board Panels based on concrete details.

---

[17] Enbridge Argument-in-Chief, p. 1.
[18] *Ontario Energy Board Act, 1998*, s. 36.
[19] *Pollution Probe Foundation v. Ontario Energy Board*, 2012 ONSC 3206, para. 4.