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September 18, 2023

Nancy Marconi
Registrar
Ontario Energy Board
2300 Yonge Street, P.O. Box 2319
Toronto ON, M4P 1E4

Dear Ms. Marconi,

RE: EB-2022-0200 Enbridge Gas Inc. Application to change its natural gas rates and other charges effective January 1, 2024 – Argument Submission of Energy Probe

Attached is the argument submission of Energy Probe Research Foundation (Energy Probe) in the EB-2022-0200 Enbridge Gas Inc. proceeding dealing with the application to change natural gas rates and other charges effective January 1, 2024.

Respectfully submitted on behalf of Energy Probe.

Tom Ladanyi
TL Energy Regulatory Consultants Inc.

cc. Patricia Adams (Energy Probe Research Foundation)
Vanessa Innis (Enbridge Gas Inc.)
Parties to the Proceeding

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**Enbridge Gas Inc. Application to change its natural gas rates
and other charges beginning January 1, 2024**

Energy Probe Argument Submission

Executive Summary

Energy Probe believes that the OEB should resist the pressure to make any major decisions that are influenced by energy transition until the Ontario government releases its report on electrification and energy transition laws, regulations and directives are in place.

There is a great deal of uncertainty about how energy transition will impact Enbridge Gas over the upcoming deferred rebasing period from 2024 to 2028. Prior to the oral hearing Energy Probe believed that Enbridge was facing increasing level of risk to its business from energy transition that it would not be able to mitigate. During the hearing Enbridge demonstrated that it will be able to mitigate most of the risks so that its business will not be significantly affected.

OEB's EBO-134 and EBO-188 guidelines are an impediment to energy transition from gas to electricity because they allow a greater level of cross-subsidy between existing and prospective customers than is allowed by the Distribution System code for electricity distributors. Although the Commissioners have the jurisdiction to make changes to EBO 134 and EBO 188 in this proceeding, Energy Probe submits that there is insufficient evidence on the record to make any changes to these guidelines now. Instead, the OEB should initiate a generic proceeding that would examine customer attachment and system expansion policies of both gas and electricity distributors with the objective of harmonization of policies and removal of impediments to energy transition. The generic proceeding should not be limited to the attachment of single-family homes but should also look at attachment policies for multi-unit residential buildings.

Prior to the oral hearing, Energy Probe believed that the change in depreciation methodology proposed by Concentric for Enbridge was a reasonable approach to the potential for faster retirement of assets due to energy transition. During the hearing Enbridge demonstrated that use of hybrid heat pumps, RNG, hydrogen and re-purposing of its assets will effectively mitigate any need for faster retirement. Enbridge has convinced Energy Probe that there is no need to change its depreciation methodology.

Energy Probe supports the proposal to increase the equity thickness of Enbridge Gas but only to 38% until such time that Enbridge's customer attachment, system expansion and overhead capitalization policies are harmonized with those of electricity distributors. Enbridge's current policies make it easier for Enbridge to grow equity earnings than electricity distributors are able to do.

Enbridge has not provided adequate evidence to justify its increase in capitalization of indirect overheads to a level that is higher than was used by legacy utilities. It has also not explained why indirect overheads should be charged on all categories of capital expenditures. Energy Probe

recommends that the OEB not approve the increase in capitalization of indirect overheads. Energy Probe submits that indirect overheads are not incremental costs and should not be included in the costs of Incremental Capital Module projects.

The OEB should also resist making any decisions regarding the type of appliances that customers can use. Section 29 of the OEB Act does not allow the OEB to extend its jurisdiction into the competitive market. The appliance market is a competitive where customers are free to choose what appliances they purchase. charge the costs of these initiatives to its regulated utility customers.

Enbridge is proposing to the OEB that it extend its jurisdiction into the competitive market for Natural Gas Vehicles. The OEB should resist Enbridge's proposals and protect the competitive market by not allowing Enbridge to pursue NGV business within the regulated utility. However, Enbridge is free to pursue NGV business through unregulated affiliates at shareholders' expense.

While the MAADs decision is clear that O&M costs of integration are not recoverable from utility ratepayers, it is not clear on the capital costs of integration which the decision does not mention. Enbridge has interpreted that omission to mean that capital costs of integration are fully recoverable from ratepayers. Energy Probe disagrees with that interpretation but agrees with Enbridge that integration assets are providing some benefit to ratepayers. Energy Probe supports the position of Board Staff to include 50% of the costs of integration assets in rate base.

Energy Transition

Enbridge Gas's energy transition evidence in this proceeding presents the Company's energy transition plan, vision and associated proposed safe-bet actions including energy transition adjustments to its demand forecasts and proposals that support the ongoing and evolving energy transition in Ontario.¹

The list of safe bet actions proposed by Enbridge Gas is:

- Maximizing energy efficiency (through demand-side management programs).¹¹
- Increasing the amount of renewable natural gas (RNG) in the gas supply through a Low-Carbon Voluntary Program and supporting RNG upgrading.
- Reducing GHG emissions from the industrial and transportation sectors via fuel switching and carbon capture and sequestration, including expansion of the Natural Gas Vehicle Program.
- Integrating gas and electric system planning.
- Supporting consumer choice and the energy transition journey, including a hydrogen blending grid study

¹ AIC para. 37

- Implementing phase 2 of Enbridge's Low Carbon Energy Project (hydrogen blending)
- Establishing an Energy Transition Technology Fund²

Energy Probe believes that, in general, Enbridge has appropriately considered energy transition and integrated resource planning considering the uncertainty about Ontario government plans. However, Energy Probe has concerns about hydrogen proposals.

There are challenging technical and serious safety issues with the use of hydrogen. Specifically, hydrogen has a much greater explosive range and higher flame speed than methane, and its molecule is much smaller increasing the possibility of leaks. Enbridge claims that these are not a concern or can all be resolved by eliminating leaks.³ Energy Probe hopes that Enbridge will be successful in eliminating all hydrogen leaks and that no one will get hurt.

If Enbridge pursues replacing natural gas with hydrogen above 20%⁴, all gas fired appliances would need to be replaced as would much of its gas distribution and transmission system including all of the existing compressors on the Dawn Parkway transmission system. Energy Probe believes that Ontario municipalities that are now served by Enbridge with natural gas should not be forced to accept hydrogen.

The definition of gas in the Franchise Agreements that Enbridge has with the municipalities it serves does not include hydrogen. For the OEB to allow Enbridge to distribute hydrogen, the first step that is required is for the OEB to revise the Model Franchise Agreement to include hydrogen. Then Enbridge has to obtain approvals from the municipalities it serves as is required by the Municipal Franchises Act. Only after Enbridge obtains such approvals from municipalities, it can apply to the OEB to provide hydrogen distribution service. Until such time, the Commissioners presiding on this case do not have the jurisdiction to approve any expenditures for the distribution of hydrogen to Ontario municipalities.⁵ In a response to an undertaking from Energy Probe, Enbridge agreed that it will seek approvals from municipalities.⁶

Enbridge has about 3.8 million gas customers in Ontario. That means that there are about 3.8 million gas furnaces, gas boilers and gas water heaters and more are being added each year. It would take decades to replace these appliances with electric appliances or with hydrogen fired appliances as Enbridge proposes. Individual homeowners would need to pay for the replacement of these appliances. Energy Probe believes that Enbridge may have to provide natural gas to customers who cannot convert to other forms of energy for decades to come.⁷

Despite its concerns about hydrogen, Energy Probe is not opposed to the Enbridge's hydrogen blending study and agrees with the position of Board Staff.⁸

² Board Staff Submission Page 9

³ Vol 1, pages 99-103

⁴ AIC para. 148

⁵ Vol.1, pages 95-96

⁶ J1.1; AIC para. 149

⁷ Vol.1, page 97; J1.2

⁸ OEB Staff Submission, pages 36-37

Several parties presented expert evidence on energy transition.

Dr. Asa Hopkins of Synapse Energy Economics, Inc. provided a report about business risk and capital structure in the context of energy transition. Chris Neme of Energy Futures Group provided a report about the implications of decarbonization. Ian Jarvis and Gillian Henderson of Enerlife Consulting Inc. provided a report about commercial sector gas demand forecasting and related matters. Dr. Robert W. Howarth and Dr. Mark Jacobson provided a report about GHG emissions associated with blue hydrogen.

Most of the experts largely ignored the herd of “elephants in the room”:

- the high population growth in Ontario and the need to provide home heating for millions of new residents of the province,
- the ability of the electricity distribution grid to serve new Ontario residents, and customers converting from gas to electricity and the high loads from EV charging,
- the increases in rates of electricity distributors as they build new capacity and install new control systems to deal with additional load, and
- the replacement in Toronto of smaller apartment buildings and single-family homes with gigantic condominium buildings which all use far more gas.

For example, Dr. Hopkins admitted that he did not consider the amount of spare capacity of the electricity distributors to serve new loads of customers transitioning from gas to electricity.⁹ There are 60 electricity distributors in Ontario, 58 of which are regulated by the OEB.

Energy Probe submits that if electricity distributors in Ontario do not have a large amount of spare capacity on each of their feeder circuits, then transition from gas to electricity can not take place until the electricity distributors build additional capacity, which may take years, cost a lot of money, and increase rates. The demands for EV charging will put further stress on the Electricity distributors as was demonstrated by a University of Alberta study for EPCOR.¹⁰ This is in line with IESO expectations.

*"Based on the 2022 annual planning outlook, the IESO expects provincial system peak to shift from mid-summer afternoons to mid-winter mid-night periods sometime in the mid-2030s, partially driven by increased overnight demand from electric vehicle charging."*¹¹

⁹ Vol 5, pages 92-93

¹⁰ K5.1, EPCOR Presentation – Alberta Experience Tab 1, Stakeholder Meeting: Sector Evolution – Utility Remuneration and Responding to Distributed Energy Resources (EB-2018-0287/0288), September 18, 2019

¹¹ K5.1, IESO Submission on EV Charging Tab 2 Electric Vehicle Integration (EVI) Initiative File No.: EB-2023-0071, Electric Delivery Rates for Electric Vehicle (EV) Charging Report

Dr. Hopkins conformed that population growth and EV charging load should be considered in transition planning.¹²

MR. LADANYI: Thank you. So, according to the Ontario government, Ontario's population is projected to increase by 37.7 percent, or almost 5.6 million, over the next 25 years, from an estimated 14.8 million on July 1, 2021, to over 20.4 million by July 1, 2046.

Should Ontario's population growth be taken into account when considering energy transition?

DR. HOPKINS: Yes.

MR. LADANYI: Thank you. Do you agree with me that increasing EV charging load combined with increasing heating load due to the population growth will have a significant impact on the capacity of the electricity distribution grid in Ontario?

DR. HOPKINS: I think that a whole bunch of new load, whether it is coming from EVs or heating, or whatever, would have a noticeable impact on electric system planning, and likely on investments.

MR. LADANYI: Would you expect that the 58 electricity distributors that are regulated by the OEB would then apply to the OEB for rate increases to pay for capital projects that would provide additional capacity?

DR. HOPKINS: If they need to invest in capital and they need more revenue requirement for that, presumably, they would come to the OEB to ask for an adjustment.

MR. LADANYI: Do you agree that, if electricity distributors are not able to provide the additional capacity in time, it may be necessary for Enbridge to provide gas for residential space and water heating for a longer period of time than is now expected?

DR. HOPKINS: Well, I guess it's -- the end of that bit there, expected by whom. I don't think there is a provincial pathway. We have talked about that extensively. And I don't know about the timeline for how quickly a given utility might be able to upgrade its system capacity.

MR. LADANYI: I am basing my expectations on what I heard in this hearing over the last few days. So energy transition should not result in any stranded customers. We should be very careful that, if we are going move too fast into energy transition and with all of this population growth, there might be a possibility that some customers will not have access to energy. Would you agree with that?

DR. HOPKINS: Yes. I think it is important to plan a transition well so that customer needs are met and people can get the service from energy, whether it is electric or gas, but you know, fundamentally people need heat, light, cooking. Right? That is the charge. When we are talking about maintaining safe and reliable services, those are the services we are talking about.

Energy Probe submits that modelling of the future should take into account what distributors are going to do, how much their rates are going to be, and whether they will increase. To speculate and do detailed calculations based on what the electricity rates are now, without considering what they are very likely to be within the next five years, or 10 years is very inaccurate. It is going to produce essentially inaccurate results.

Chris Neme of Energy Futures Group testifying on behalf of ED and GEC recommended that the OEB “require all new connections to be net-zero greenhouse gas emitting. This would include requiring that all new connections install hybrid heating systems with a cold climate air source

¹² Vol.5 pages 95-97

heat pump meeting the vast majority of heating needs (and a back-up gas furnace functioning only during the coldest hours of winter).”¹³

Energy Probe submits that the OEB does not have the jurisdiction under the OEB Act to order such a requirement. Home heating systems are behind the meter, and are part of the competitive market, which is beyond OEB jurisdiction. Mr. Neme wants all new connections to be net-zero greenhouse gas emitting but in his next sentence says that these could have a “*back-up gas furnace functioning only during the coldest hours of winter*”. Mr. Neme’s vision of net-zero seems practical since it is not absolute because it includes some gas.

However, in response to questions by the Chair, Mr. Neme changed his position.¹⁴

MR. MORAN: So, for people who currently have a gas furnace, if I understand what you're saying, don't rip that out. Add the heat pump and keep on going for now.

MR. NEME: Well, no. I would encourage anybody who has a gas furnace and who is interested and willing, to rip it out and put in an all-electric heat pump with an electric-resistance backup; hopefully at the same time that you have upgraded the efficiency of your building envelope, if you haven't already. But I don't object to customers who may not quite want to go that far and want to go the hybrid route, and I also don't object to programs that the utilities can run that promote both, both the all-electric option and the hybrid option. Just recognizing that the most important thing is that we really get going, without locking ourselves into one definitive answer.

I would have concern about a program that just promoted hybrid solutions. I think programs that promote both, and then kind of leave it to the market to determine what that mix of hybrid versus all-electric solutions are, is okay in the near term, as long as the hybrid solution is really a cold-climate heat pump. I have seen some gas utilities want to propose hybrid solutions where the switchover occurs at zero Centigrade or minus 2 or minus 3. And, in that case, they are developing a heat pump market that is just not going to be helpful in the long run and still retaining 30, 40 percent of the gas load, which makes no sense at all.

MR. MORAN: Okay. So, for those homeowners with an existing gas furnace who are looking at adding a heat pump because of cold-day anxiety, for want of a better term, what kind of alternatives are there to back up that heat pump and address that anxiety?

MR. NEME: Sure. Well, you can buy any centrally ducted cold-climate heat pump, with electric resistance heat as a backup for some. And the amount of electric resistance heat that you can have as part of a backup system can be quite substantial. So, for folks who have the anxiety about, you know, will my house remain warm, you can address that anxiety with that backup system. From that perspective, you're fine.

The issue with electric resistance backup is that it is not very efficient. Or, at least -- I mean, it's 100 percent efficient; it's just not nearly as efficient as a heat pump. So, ideally, you

¹³ Exhibit M9-GEC-ED Energy Transition, page 5

¹⁴ Vol 6, pages 175-177

would want that electric resistance backup to run just the minimum number of hours of the year. In a reasonably well-insulated home in Toronto, that is what is likely to be the case.

Mr. Neme never provides any information on the cost of operating a heat pump with electric resistance heating. Mr. Neme underestimates the cost a heat pump installation because he leaves out the cost of the air handler.¹⁵ Air handler or gas furnace is required to use a heat pump in a house with air ducts. In his Appendix A: Assumptions for Customer Economics of Electrification, Table 10: Equipment Cost Assumptions, is wrong as it either doesn't account for the need for customers to purchase an air handler together with their cold climate heat pump, or assumes a very low cost for the air handler that is included in the heat pump cost provided. Typically, an air handler was more expensive than buying an entire new gas furnace to perform the air handler duties.

Mr. Neme accuses other parties of *“significantly understating cost savings from pruning of the gas distribution system”* as a result of electrification.¹⁶ Energy Probe submits that it is not clear how this pruning would be achieved. For example, if 30 homes on a street consisting of 100 homes switch from gas furnaces to electric heat pumps with gas backup for cold winter days, the peak hourly volume on a winter day would not change.

Mr. Neme assumes *“that the customer fully electrifies at the time that it would otherwise be replacing both its gas furnace and central air conditioner. This requires additional capital costs for a new electric heat pump water heater, new electric induction stove and new electric dryer – costs that would not be incurred for another six or seven years if the customer continued to use gas equipment for such end uses. On the other hand, such a complete fuel-switch would enable customers to eliminate not only all variable gas charges, but also all fixed monthly gas charges.”*

Energy Probe submits that this his statement is an implied acknowledgment that customers that don't make this “complete fuel-switch” would continue to incur fixed monthly gas charges. He doesn't include discussion of the cost of disconnecting from gas, which presumably is not zero.

There is no mention of additional home insulation required for homes with heat pumps compared to homes with gas furnaces. Heat pumps especially don't work well with low or no insulation in older homes. There would be a significant cost to insulate a home not contemplated in Mr. Neme's evidence. Mr. Neme claims higher bill savings using a cold-climate heat pump vs a hybrid solution but there is no discussion of the impact of insulation. He provides no comments on whether that cold-climate heat pump would actually be capable of maintaining a desired temperature in an average house with little to no insulation.¹⁷

In his evidence¹⁸, Mr. Neme lists assumptions about the fixed annual cost of Gas from 2023 to 2040. For every year, Neme lists the assumed fixed cost as \$310. This suggests that Enbridge's proposed straight fixed variable rate design was not considered in his analysis.

Mr. Neme and Dr. Hopkins did not take into account the high population growth in Ontario and its impact on energy use.

¹⁵ Exhibit M9, page 22

¹⁶ Exhibit M9, page 17

¹⁷ Vol 5, P172, lines 17-24,

¹⁸ Exhibit M9, Appendix A, Table 11

Mr. Neme¹⁹ and Dr. Hopkins did not take into account the impact of EV charging on the electricity distribution grid and electricity distribution rates²⁰.

When asked about a scenario where people cut down trees for firewood²¹, Mr. Neme neglected to mention that the Canada Study (by Canadian Climate Institute), which he references predicts that 0-10% of home heating will be met by wood by 2050.

Mr. Ian Jarvis and Ms., Gillian Henderson the expert witnesses on energy transition for BOMA did not actually deal with energy transition at all. Their written evidence and oral testimony were entirely about more efficient use of natural gas by large buildings.

They did not dispute that all large condominium buildings in the Yonge and Eglinton area use natural gas, and that new large condominium buildings under construction on Roehampton Avenue and planned for Bayview and Eglinton area will likely use natural gas. Nor did they dispute that all these tall buildings have natural gas fired emergency power generators.²²

Energy Probe submits that there is no evidence that any existing large condominium buildings are converting from natural gas to electricity for space and water heating and for emergency power.

In summary, there is no evidence that there is a significant number of conversions from gas to electricity in the residential market. It is possible that there are some conversions, but the numbers are unknown and are dwarfed by new gas customer additions and the increase in gas volume due to new large condominium buildings, particularly in the GTA.

Energy Transition is an Ontario government initiative. As an Ontario gas distributor Enbridge Gas will have to follow whatever energy transition laws, regulations and directives are issued by the Ontario government. Ontario Government's Electrification and Energy Transition Panel is expected to release its report later this year. Energy Probe expects that following the release of the report Ontario government will issue its energy transition laws, regulations and directives for gas distribution utilities. This may take several months or even years.

Any plan for energy transition must consider what consumers of energy in Ontario would transition to, and such a plan should include electricity generators and distributors. Energy transition cannot be only about getting rid of gas without considering what will replace it and when. This was confirmed by the OEB in its consultation on the regulatory framework for energy transition.²³

A cost-effective energy transition requires whole system planning that considers coordination between natural gas and electricity transmission and distribution. Oversight to ensure planning coordination could help promote cost-effectiveness and better outcomes for customers.

¹⁹ Vol 5, pages 184-185

²⁰ Vol 5 pages 191

²¹ Vol 5 pages 192

²² Vol 7, pages 25-29, K7.1

²³ EB2022-0302 Regulatory Framework Workshop, April 19, 2023, presentation, page 6

This was confirmed by Dr. Hopkins.²⁴

MR. LADANYI: But you agree that electricity distributors would have better knowledge of their operations than Enbridge does, and that they should be included in any planning for the transition from gas to electricity?

DR. HOPKINS: Yes, I think that is fair. I think that that is a part of the point of having a provincial process. As we talked about, the province doing planning is to look in that integrated kind of fashion. And, you know, as I have talked about the value of potentially having the OEB play a role in scenario planning, you know, given that they are -- you know, they can sit at that hub, you know, being cognizant of the distribution system on both the electric and gas sides.

Energy Probe believes that the essential component of transition from gas to electricity is the electricity distribution system. Until the distribution system is able to deliver the required energy to customers to replace the energy provided by natural gas, transition from gas to electricity cannot take place.

This was also confirmed by Mr. Neme²⁵ and Enbridge.²⁶

Energy Transition away from natural gas to some other form of energy is at the core of this case. There is a great deal of uncertainty about how energy transition will proceed. If large numbers of gas customers are required to convert to electric space and water heating the electricity distribution system would need to be greatly expanded and modified if this coincides with large scale adoption of rooftop solar, home battery storage, electric vehicle charging, new electrical appliances, and the two-way flow of electricity. New generating stations would need to be built. That would take decades and cost billions. Energy Probe believes that nuclear power is the only source of energy that can reliably replace natural gas at a reasonable cost but that may take many years. Energy Transition should not be a cost is no object initiative. Energy customers expect that their energy costs will not increase at a higher rate than the rate of inflation.

Energy Probe believes that the OEB should resist the pressure to make any major decisions that are influenced by energy transition until the Ontario government releases its report on electrification and energy transition laws, regulations and directives are in place.

NGV Program

Enbridge Gas proposes the following regulatory treatment for the NGV Program.

1. Continue the NGV Program as an ancillary activity for the utility;
2. Expand the NGV Program to all Enbridge Gas franchise areas; and

²⁴ Vol. 5, pages 101-102

²⁵ Vol 5, pages 182-183

²⁶ AIC para. 113

3. Modify the current regulatory treatment to remove the requirement to impute revenue when the achieved annual rate of return does not meet or exceed the required rate of return, such that the NGV Program is funded solely by the monthly service fees charged to participating customers.²⁷

NGV Program rate base is \$21.4 million. The current regulatory treatment was put in place by the OEB as ratepayer protection to ensure that ratepayers do not subsidize the NGV program. Removal of the requirement for imputed revenue would remove protection for ratepayers.

NGV operates behind the meter in the competitive market. Enbridge indicated in its evidence that there are currently no other providers of NGV. That does not mean that there can not be a competitive market. If there is money in to be made in the NGV business, competitors to Enbridge will appear. NGV is not an essential service. There are many services in the competitive market that have a single supplier but are not regulated by the OEB or any other regulatory body because they are not essential services.

Enbridge claims that if NGV was removed from regulation, that would send a negative signal to the NGV market. That is hard to believe. Enbridge could continue to operate NGV services through an unregulated affiliate, for example, Enbridge NGV Inc., that could use the same Enbridge brand as Enbridge Gas Inc.

Section 29 (1) of the OEB act requires the OEB to refrain from exercising its power where there is competition to protect the public interest.

29 (1) On an application or in a proceeding, the Board shall make a determination to refrain, in whole or part, from exercising any power or performing any duty under this Act if it finds as a question of fact that a licensee, person, product, class of products, service or class of services is or will be subject to competition sufficient to protect the public interest. 1998, c. 15, Sched. B, s. 29 (1).

Scope

(2) Subsection (1) applies to the exercise of any power or the performance of any duty of the Board in relation to,

- (a) any matter before the Board;*
- (b) any licensee;*
- (c) any person who is subject to this Act;*
- (d) any person selling, transmitting, distributing or storing gas; or*
- (e) any product or class of products supplied or service or class of services rendered within the province by a licensee or a person who is subject to this Act. 1998, c. 15, Sched. B, s. 29 (2).*

²⁷ AIC para. 742

"gas" means natural gas, manufactured gas, synthetic natural gas, liquefied petroleum gas or propane-air gas, or a mixture of any of them, but does not include a liquefied petroleum gas that is distributed by means other than a pipeline.

Energy Probe submits that keeping NGV program in the utility is not required to protect public interest. The OEB should turn down Enbridge's request,

Equity Thickness

There is a great deal of uncertainty about how energy transition will impact Enbridge Gas over the upcoming deferred rebasing period from 2024 to 2028. Prior to the oral hearing Energy Probe believed that Enbridge was facing increasing level of risk to its business from energy transition that it would not be able to mitigate. During the hearing Enbridge demonstrated that it will be able to mitigate most of the risks so that its business will not be significantly affected.

Energy Probe found the testimonies of LEI on behalf of OEB Staff and of Dr. Cleary on behalf of IGUA to be more persuasive than the testimony of Concentric on behalf of Enbridge.

Energy Probe agrees with OEB Staff that an increase in equity thickness to 38% would be appropriate to deal with any increase in business risk due to energy transition. However, equity thickness should not be increased to the 40% level approved for electricity distributors unless the customer attachment policies and overhead capitalization policies for gas distributors and electricity distributors are harmonized. Currently Enbridge is allowed to continue using the outdated EBO-134 and EBO-188 guidelines and its generous overheads capitalization policies which make it much easier for Enbridge to grow equity earnings than what OEB allows electricity distributors.

Natural Gas is in competition with electricity for home heating and industrial energy uses in Ontario. As the main distributor of natural gas, it would make sense for Enbridge Gas to keep its rate increases to a minimum. Yet, the company is not doing that. Its requests for the change in depreciation methodology and its equity thickness are large drivers of its request for a rate increase. Moreover, its use of EBO-134 and EBO-188 guidelines for system expansion puts a further upward pressure on rates. Enbridge Gas itself is the author of a large part of the erosion of its competitive position.

There is an inconsistency between Enbridge's request for an increase in equity thickness, which Enbridge partially justifies by the fact that electric distributors have 40 percent equity thickness, but Enbridge is opposed to using the same customer attachment policies as electric distributors.²⁸

²⁸ Vol.10, pages 165-166

2024 Rate Base

Energy Probe supports capital expenditures that are required for the continuation of safe and reliable natural gas service to 3.8 million Enbridge Gas customers in Ontario. However, Energy Probe is opposed to uneconomic capital expenditures on projects by Enbridge that will require the existing customers to subsidize the customers served by these projects for more than 40 years, such as previously approved Kingsville²⁹ and Leamington³⁰ projects, and the Panhandle System Expansion currently before the OEB. Energy Probe is also opposed to capital expenditures on projects that provide more capacity than is needed by in Enbridge in-franchise customers such as the recently approved Dawn to Corunna Pipeline.³¹

Some parties in this proceeding want Enbridge to stop capital expenditures in order to save future ratepayers from paying for the cost of stranded assets in the future. It is not clear why these parties are so concerned about stranded costs. For example, the SEC is recommending that schools that it is representing convert from gas heating to electric heating to avoid future rate increases and stranded costs.

*MR. SHEPHERD: All right. I mean, it sounds like my advice to my schools, which is to get off the gas system as fast as you can so you are not left holding the bag, is probably good advice. Right? Because you are going to increase rate base, and customers and billing determinants are going to go down. Rates are going to go up. Right?*³²

If schools follow SEC's advice and convert to all electric heating, they will not be exposed to any Enbridge rate increases and potential stranded costs. It should be noted that based on evidence in the St. Laurent case, not one school in Ottawa had followed Mr. Shepherd's advice.³³

Other parties that represent supporters who are opposed to natural gas use such as Environmental Defense, GEC, and Pollution Probe are also very concerned about rate increase and stranded costs. If their supporters are so concerned, they should just stop using natural gas and they will not have to face the costs of gas rate increases and stranded assets in the future.

In general, Energy Probe supports the submission of OEB staff on 2024 Rate Base except as it relates to the Customer Attachment Policy and Indirect Overheads Allocation.

Customer Attachment Policy

There are two OEB guidelines that deal with system expansion, EBO-134 and EBO-188.

EBO-134, the title of which is *Review by the Ontario Energy Board of the Expansion of the Natural Gas System in Ontario*, was issued on June 1, 1987, to facilitate conversions from oil

²⁹ EB-2018-0013

³⁰ EB-2016-0186

³¹ EB-2022-0086

³² Vol. 3, page 70

³³ EB-2020-0293, Interrogatory Sponsors-1.1-Energy Probe-4 (g) and (h)

heating to natural gas heating at the time the Federal Government was trying to reduce imports of oil. EBO-134 introduced the three-stage test. First stage looked at the impact on existing customers to see if the system serving new customers would require subsidies from existing customers. If it did, then Stage Two looked at the energy cost savings of new customers. If these savings were greater than the subsidies paid by existing customers, then the project was approved. If the energy savings were not great enough, then Stage Three looked at impacts on society at large. In 1987 the major impact was the reduction in oil imports into Eastern Canada including Eastern Ontario.

After the EBO-134 was put in place it became apparent that there were differences between gas utilities in how it was applied. This came to a head in competitive applications by Consumers Gas and Union Gas to expand into the same area. To resolve these differences in 1996 The OEB commenced the EBO-188 proceeding, with the title *A hearing to inquire into, hear and determine certain matters relating to natural gas system expansion for The Consumers' Gas Company Ltd., Union Gas Limited and Centra Gas Ontario Inc.* The differences in interpretation and application of EBO-134 were resolved mainly through negotiations and the OEB issued its decision and guidelines on January 30, 1998. The EBO-188 Guidelines in Appendix B set the minimum Profitability Index for an individual project at 0.8 based on a forecast of 10 years of customer attachment and a 40-year revenue horizon for residential customers and 20 years for large volume customers as long as the entire portfolio of projects in a year had a PI of 1.1 or greater. The concept was that new customers in less profitable projects would theoretically be subsidized by new customers in more profitable projects. However, customers in marginal projects would still be subsidized for more than 40 years since it would take 40 years to reach a PI of 0.8 and more years of revenue would be needed to reach a PI of 1.0.

Both guidelines allow for far greater cross-subsidies between existing and new customers than are allowed by the Distribution System Code for Electricity Distributors which was issued in 2008. To determine economic feasibility, Appendix B of the DSC uses 5 years of customer attachment and a 25-year revenue horizon. Any project that does not have a positive NPV requires contributions from customers.

Currently, the playing field is sharply tilted against electricity as was shown in the EB-2022-0024 Elexicon Energy case regarding energy supply for the subdivision development in North Brooklin. The differences in the economic parameters between Appendix B of the Distribution System Code for electricity system expansion and Appendix B of EBO 188 for gas system expansion were an issue in the proceeding.

The excessive cross-subsidies allowed by EBO-134 are an issue in the current EB-2022-0157 Panhandle Regional Expansion Project proceeding where Enbridge is asking for approval of a pipeline mainly required to serve the Stellantis electric vehicle battery plant and the OPG's subsidiary Atura Power's gas fired generator powerplant in Windsor to supply reliable electricity to Stellantis. The pipeline as proposed has "*a NPV of negative \$150 million and a PI of 0.48 based on 40 years of revenues.*"³⁴

³⁴ EB-2022-0157, Updated 2023-06-16, Exhibit E, Tab 1, Schedule 1, page 4

For example, the Leamington expansion project was approved by the OEB in accordance with EBO-134. The project will require more than 20 years of subsidies. *“Over a 20-year term, the net present value (NPV) for the Stage 1 test was negative \$212 M based on the facilities required for five years of demand day growth.”*³⁵ Also approved in accordance with EBO-134 was the subsequent Kingsville project which will require subsidies from existing ratepayers for more than 40 years.

*While the stage 1 analysis results in a net present value of negative \$59.4 million and a P1 of only 0.44 over 40 years, broader economic benefits identified in the stage 2 analysis support the approval of the Project.*³⁶

According to the EBO-188 guidelines, a marginal customer, a customer that is barely feasible, at 0.8, that customer would have to remain attached, and the customer of Enbridge for 40 years. That customer would not reach the profitability index of 0.8 until the 40th year on the marginal project that is at 0.8. The portfolio concept in EBO-188 ensures that there are adequate excess revenues from other customers in the portfolio to offset the revenue deficiency from the marginal customer. However, it does not mean that the marginal customer will not need to be subsidized for more than 40 years by other customers.

While large subsidies from gas ratepayers for gas system expansion may have been appropriate in 1987 when EBO 134 was issued or in 1998 when EBO 188 was issued³⁷, they are no longer appropriate when Ontario is working on a pathway for energy transition. EBO-134 and EBO-188 are major obstacles on that path and the Commissioners have the jurisdiction to remove them.

Apart from the subsidies in EBO-134 and EBO-188 that are apparent whenever there is a Leave to Construct application, there are hidden subsidies in reinforcement projects required to provide gas service to large condominium projects. The costs of these reinforcements are included in the reinforcement budget.³⁸

MR. LADANYI: Yes. You mentioned a minute ago that your -- I think your planning staff or whatever, looks at long-term needs and plans reinforcements so that you would have enough capacity to add whatever new construction is going on, let's say, in Toronto. So I presume that everybody will be paying for this new capacity, new reinforcement. And all Enbridge customers, it goes into a pool. It is not allocated to Toronto. It is actually everybody pays for it; that's why I said even people in Ottawa would pay for it.

Or, if reinforcement is required after these buildings are built, it would be exactly the same thing, wouldn't it?

MR. MACPHERSON: Can we just confer for a moment, please?

If I could answer: To the extent that a reinforcement is, I will call it non-specific, yes, that does get rolled up to normalize reinforcement costs, and would be applied in the sum of all those projects to customers connecting anywhere.

But in cases like this, this is a specific reinforcement that would be, to very clear and

³⁵ EB-2016-0186 Decision, page 7

³⁶ EB-2018-0013 Decision, page 5

³⁷ Vol. 10, pages 161-163

³⁸ Vol.10, page 170.

known large customers in this case, that that would be -- they would be more likely to be bearing these costs in their feasibility. So this is a very -- I mean, you have a very site-specific area requiring growth; it looks like a whole area being transformed, by looking at this picture; I don't know the area.

Large condominium buildings in the Greater Toronto Area all use natural gas for space and water heating boilers and for the emergency power supply generator. For a typical large condominium building, the cost of the service line, the pressure regulator and the meter can be as high as \$50,000. It is not clear from the evidence if Enbridge installs these for free or charges the condominium developer. Unless there is a large amount of spare capacity in the gas mains, Enbridge has to increase capacity by reinforcement or by modifications at pressure regulating stations. There is no indication that condominium developers are charged a contribution for this work. Indeed, it appears that Enbridge does not even do a feasibility analysis for most of these large condominium projects or for related reinforcements. This is not a small problem. There are about 2,000 large condominium buildings in the GTA, and more are planned. Many can be seen from OEB offices at Yonge & Eglinton. While most parties in this proceeding are focused on the energy transition of detached single-family homes, they are ignoring the giant condominium “elephant in the room” that is burning far more gas with the help of existing ratepayers.

Energy Probe believes that exit fees may be appropriate for new customers served by main extensions and Leave-to-Construct projects who leave the system prior to full depreciation of assets that Enbridge built to serve them. Such exit fees would be particularly appropriate for new commercial and industrial customers who need additional capacity such as Atura and Stellantis on the Panhandle project. Although Enbridge is not seeking approval of exit fees in this case, it may consider such fees in the future.³⁹

OEB’s EBO-134 and EBO-188 guidelines are an impediment to energy transition from gas to electricity because they allow a greater level of cross-subsidy between existing and prospective customers than is allowed by the Distribution System code for electricity distributors. Although the Commissioners have the jurisdiction to make changes to EBO 134 and EBO 188 in this proceeding, Energy Probe submits that there is insufficient evidence on the record to make changes to these guidelines now. Instead, the OEB should initiate a generic proceeding that would examine customer attachment and system expansion policies of both gas and electricity distributors with the objective of harmonization of policies and removal of impediments to energy transition.

Overhead Capitalization

Enbridge has applied for approval to include \$292 million of capitalized indirect overheads in 2024 Rate Base. This \$15.4 million or 1.1% more than would have been capitalized in 2024 relative to the legacy approved methodologies.⁴⁰

³⁹ Vol. 10, page 173

⁴⁰ AIC para. 356

Enbridge Gas has filed detailed evidence about its proposed overhead methodology.⁴¹ This evidence includes an overhead capitalization study undertaken by Ernst & Young LLP (EY).⁴²

E&Y was given data by Enbridge and then used Enbridge's methodology to arrive at exactly the same overhead numbers as Enbridge did. It did not develop its own methodology and apply it to Enbridge data, nor did it independently obtain cost data by studying the activities of Enbridge employees. It seems to Energy Probe that the E&Y study was simply an exercise in arithmetic. It does not prove that Enbridge's capitalization methodology is appropriate.⁴³

There are many questions about Enbridge's capitalization methodology that Enbridge has failed to explain, and that E&Y did not address.

- Prior to amalgamation Enbridge Gas Distribution capitalized a higher proportion of its costs than Union Gas. After amalgamation the new Enbridge Gas capitalizes at a rate as high as Enbridge Gas Distribution. Does that mean that Union Gas was not capitalizing the correct amount?
- Enbridge is applying the same indirect overhead capitalization rate to purchased assets such as pipe, valves, fittings and meters as it is to constructed assets. Enbridge was not able to explain why.
- Enbridge has an agreement with a group of construction contractors (Extended Alliance) to whom it pays an annual overhead cost, but then charges an additional indirect overhead rate on their costs included in project totals.
- Enbridge has not provided adequate evidence to justify this increase in capitalization of indirect overheads.⁴⁴
- It has also not explained why indirect overheads should be charged on all categories of capital expenditures.

It appears that Enbridge's new overhead capitalization methodology is not even understood by its own staff who calculated overhead costs incorrectly for the Panhandle Regional Expansion Project,⁴⁵

Prior to this application, Enbridge was capitalizing a higher proportion of its costs than electricity distributors are allowed to do. Now it is seeking OEB approval to capitalize even more of its indirect costs⁴⁶. It is a fact that overhead capitalization increases rate base, and rate base increases result in higher earnings that accrue to shareholders. This makes it easier for Enbridge to grow equity returns. Until Enbridge's overhead capitalization policies are harmonized with the

⁴¹ Exhibit 2, Tab 4

⁴² Exhibit 2, Tab 4, Schedule 2, Attachment 1

⁴³ Transcript Vol. 15

⁴⁴ AIC para. 356

⁴⁵ Vol.16, pages 50-52; J16.2

⁴⁶ AIC para. 356

policies of electricity distributors the OEB should not increase Enbridge's equity thickness to that of electricity distributors.

Energy Probe recommends that the OEB not approve the \$15.4 increase in capitalization of indirect overheads. If the OEB does not approve this increase in capital expenditures, it should direct Enbridge to find an equivalent amount of savings in its O&M expenditures.

Although Enbridge has not applied for approval of any Incremental Capital Module projects at this time it is likely that it will in the upcoming rebasing deferral period. Energy Probe is concerned that there has been double recovery of indirect overheads through ICM projects in the past and there will be in the future unless changes are made.

Enbridge is proposing to set 2025 base rates by escalating the 2024 base rates by the Price Cap formula. Then 2025 base rates will be recovering 100% of the \$292 million in indirect overheads escalated by the Price Cap formula. If Enbridge applies for approval of an ICM project in 2025 and allocates indirect overheads to it, it will be recovering indirect overhead costs that are already recovered in base rates.

Indirect overheads are not included evaluation of economic feasibility. This was confirmed by Enbridge.

*"E.B.O. 134 Report of the Board states "The Board finds that incremental costs should be used in evaluating the feasibility of system expansion. **Indirect overhead is not an incremental cost and has therefore not been included in the DCF analysis.**"⁴⁷ (emphasis added)*

Energy Probe submits that incremental overhead is not an incremental cost and should not be included in the cost estimate of Incremental Capital Module.

Depreciation Expense

Enbridge filed expert evidence by Concentric proposing faster depreciation rates based on the Equal Life Group methodology. Dr. Bowman on behalf of OEB Staff and Mr. Masden on behalf of IGUA filed expert evidence in support of retaining the current Average Life Group methodology.

If commissioners believe that Enbridge will continue to add customers, expand its system, and retire its assets due to wear and tear and obsolescence as it has done in the past, then it should accept the depreciation rates proposed by Dr. Bowman for Board Staff and Mr. Madsen for IGUA.

However, if the commissioners believe that Enbridge will not continue to expand its system, add customers, and retire its assets as in the past but will instead retire assets at a faster rate, then they should adopt the depreciation proposals of Mr. Kennedy of Concentric on behalf of Enbridge.

⁴⁷ EB-2022-0157 Exhibit I. STAFF.15

Prior to the oral hearing, Energy Probe believed that the change in depreciation methodology proposed by Concentric for Enbridge was a reasonable approach to the potential for faster retirement of assets due to energy transition. Based on the evidence in the hearing, there is no indication that assets are retiring at a faster rate. During the hearing Enbridge demonstrated that use of hybrid heat pumps, RNG, hydrogen and re-purposing of its assets will effectively mitigate any need for faster retirement. Although it was not its intention, Enbridge has convinced Energy Probe that there is no need to change its depreciation methodology from ALG to ELG.

Some parties have proposed that Enbridge create a segregated fund to be used to pay for removal of stranded assets and for restoration of land after removal.

Energy Probe believes that the OEB should be more concerned with stranded customers than with stranded assets. There may not be any stranded assets for decades. Energy Probe believes that Enbridge's buried pipe will be re-purposed if and when it is no longer needed for gas service. This was confirmed by Enbridge. If any gas distribution and transmission pipelines are no longer in use it is unlikely that they will need to be excavated and removed. Energy Probe is opposed to the creation of a segregated fund to pay for removal and restoration.

Integration Capital

Enbridge Gas submits that it is appropriate to include integration capital amounts in 2024 rate base. The total undepreciated integration capital amounts that Enbridge Gas proposes to include in 2024 rate base is \$119 million.²⁴³ Under the OEB's general principle of "benefits follow costs", it is appropriate that customers pay the ongoing costs of technology assets, in the form of depreciation, that will continue to benefit them after rebasing.⁴⁸

While the MAADs decision is clear that O&M costs of integration are not recoverable from utility ratepayers, it is not clear on the capital costs of integration which the decision does not mention. Enbridge has interpreted that omission to mean that capital costs of integration are fully recoverable from ratepayers. Energy Probe disagrees with that interpretation but agrees with Enbridge that integration assets are providing some benefit to ratepayers. Energy Probe supports the position of Board Staff to include 50% of the costs of integration assets in rate base.

Deferral and Variance Accounts

Enbridge Gas requests that the OEB approve the clearance of the balance in the TVDA related to accelerated CCA for integration capital projects, such that those who are paying towards the undepreciated costs of the integration capital projects receive the credit balance in the TVDA. If the OEB finds that the undepreciated costs of the integration capital projects are appropriately part of 2024 rate base (as Enbridge Gas proposes), then the balance in the TVDA should be credited to ratepayers. If the OEB does not agree with Enbridge Gas and disallows the

⁴⁸ AIC para. 214

undepreciated costs of the integration capital projects from 2024 rate base, then Enbridge Gas should receive the credit balance in the TVDA.⁴⁹

The balance in the TVDA is \$5 million⁵⁰. Energy Probe agrees with Board Staff that 50% \$119 million undepreciated cost of the integration capital should not be included in rate base and accordingly Enbridge should receive 50% of the \$5 million credit balance or \$2.5 million.

Other Issues

Energy Probe supports the position of OEB staff on all other issues that are not specifically listed in this argument submission.

-All of which is respectfully submitted -

⁴⁹ AIC para. 638

⁵⁰ Transcript Vol 15, Undertaking J15.1